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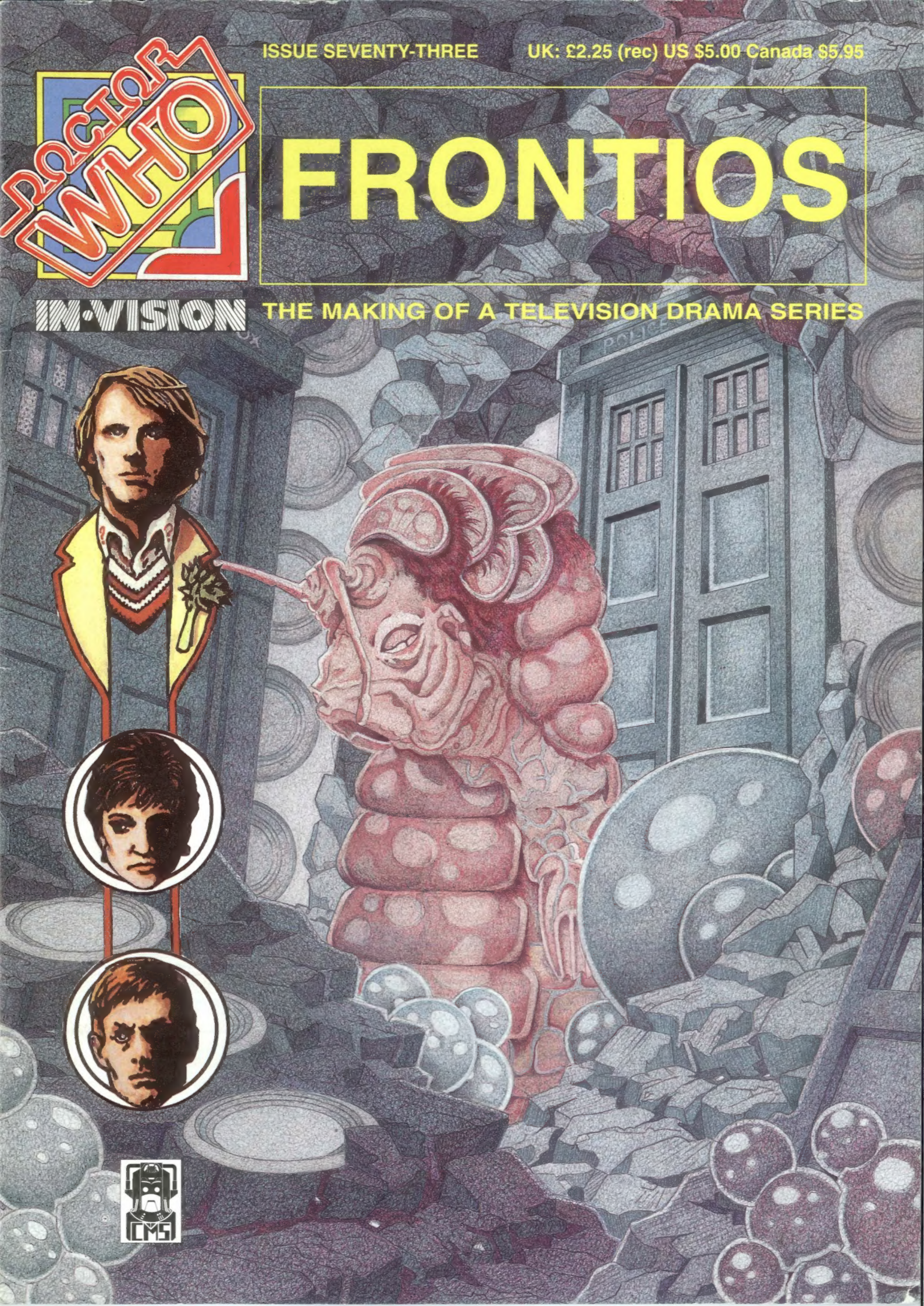
DOCTOR WHO

FRONTIOS

IN-VISION

THE MAKING OF A TELEVISION DRAMA SERIES



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This final exodus will be the greatest in Earth's history. In contrast to the small scale colonisations of previous millenia, we shall be transporting the entire population of Earth to other worlds. We cannot imagine that the other powers of the universe will respond kindly to this. For this reason, Earth's valedictory colonies must isolate themselves, maintaining communications silence for fear of attracting the attentions of hostile powers. Under such circumstances, the commanders of the Colony ships must have absolute power until such time as each colony becomes fully established.

Personal Log, John Revere

L minus 45 days
The assignments came through today. I'd hoped to get second officer on the Refusis mission - the final flight. Instead, they've made me captain of Veruna 246.

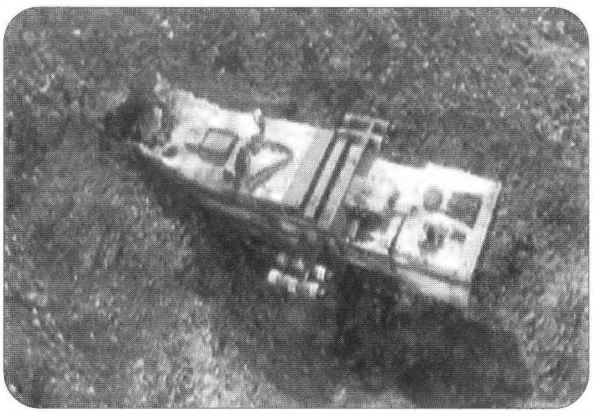
I'm not sure whether to be disappointed or wary. I'd have liked to have been on the Ark - they'll get to witness the end, and be remembered forever if our species survives. We're just another mission, one of hundreds. But there are advantages - we're not taking any of those Monoid scum, and we've got the impeller drive. What with the time dilation effects, we'll make landfall within my lifetime.

But I'll be in charge, absolute charge, and I don't feel ready for it. I understand why they want the ship commanders to be young, so they'll live long enough to supervise those first few crucial years of each Colony... but I'm not ready. Everyone looking to me, as if I alone can get them through the years ahead, and I daren't show a moments' doubt.

I'm encrypting this, for release after my death. If Chief Orderly Mandel were ever to read my doubts, he'd never accept my authority again. But you, whoever you are, need to know your predecessor shared your doubts. I hope I overcame them.

Jack Revere

L plus 250 days
I don't know how I'd cope without Mandel. He's always there, ensuring I play my role, maintaining morale. He's helped me turn this band of reprobates into a crew - I hadn't realised until we were underway how my colleagues in the Service had rigged the rostas, seizing all the prime candidates for Colony missions, and leaving me with the left-overs. Scientific dreamers, transpops from the scum cities... you couldn't have chosen a worse balanced mix if you'd tried. But we're becoming a society, even if I begin to wonder what would happen without me. It's not me anymore, it's the image Mandel's built up around me. Though that's terribly distancing - I can't talk to anyone any more. Mandel keeps on urging me to take a wife, and raise a son to succeed me - I might just do it, if only so I can talk to Katlayne without feeling I'm the captain...



John Revere

D plus 24 days
It's three weeks since the Day of Disaster. I've barely had time to think since the crash, let alone make a log entry. We find ourselves stranded on a desolate world - potentially fertile, but barren and lifeless. We're dependant on our supplies for as long as it takes to plant a self-sustaining eco-system, and my people are entirely dependant on me.

Whereas I have no-one left to sustain me. Katlayne was carried off by the sickness last week, and Plantagenet's unlikely to survive. What would Mandel think of his attempts to found a dynasty now? He died in the crash, and his daughter with him - so much for his hopes of an eventual union.

He'd got me so well-trained I hardly show how alone I feel, but I don't know who I miss most. I just have to carry on. Young Brazen's fulfilling Mandel's duties admirably, maintaining order, but he's limited. He doesn't realise how much the Chief Orderly's brief extends beyond the rule book. At least, that was the way Mandel saw it...

Captain John Revere

D plus 10 years, 67 days
The war goes well. We have now survived three weeks of bombardment without harm to our morale, and remain ready for the imminent invasion. Chief Orderly Brazen maintains a three-minute watch for alien incursions, and I am confident we can deter any threat from the skies. Despite his youth, my son Plantagenet has shrugged off his childhood illnesses and is ready to assume the burden of command. The Colony of Frontios is prepared for all which is to come. After ten years of struggle, our survival is assured. The current situation cannot last, and by surviving it, we write the greatest chapter in human history.

Captain Revere, Leader of Frontios

"ERASE THIS!"
BY ORDER, CHIEF ORDERLY BRAZEN.

ORIGINS: "The old man trapped in the young man's body". Ever since the announcement that 29-year old Peter Davison would play the role of the fifth Doctor, fans and production staff alike had been teased by the challenging notion that this new, youngest-ever looking incarnation would effectively be the first Doctor revisited. The testiness, impatience and imperious authoritarianism so essential to William Hartnell's original performance would be reborn in Peter Davison, but with the curious juxtaposition that Doctor number five's physical appearance would be totally at odds with his internal character.

That concept had been nurtured in the mind of Christopher Bidmead, the show's Script-Editor throughout 1980 and the man charged with coming up with a replacement personality to follow that of outgoing Doctor Tom Baker. At the time of his handover to temporary replacement, Antony Root Bidmead had only penned one storyline for Baker's replacement, Davison's debut serial, CASTROVALVA.

A curious story, CASTROVALVA was staged such that the fifth Doctor's true qualities were deliberately obscured throughout most of the four episodes, only really emerging, like the series' proverbial butterfly from the chrysalis, towards the very end.

Since then, neither Antony Root nor Eric Saward had ever truly shared Bidmead's vision of an almost schizophrenic fifth Doctor. The former's brief had been to step in at short notice and pull workable scripts together, without wasting very much time on semantic window dressing, while the latter would later own up to a general feeling that Peter Davison was perhaps miscast as a **Doctor Who**. Only Christopher Bidmead, and perhaps Robert Holmes, would show true understanding of the fifth Doctor's character.

By the time audiences sat down to watch episode one of FRONTIOS, Davison's three and a half-plus years tenure as the Doctor had less than two months left to run. Colin Baker was already in the chair with a Press Call showing off his new costume having been staged on January 10th 1984.

Yet suddenly, without fanfare or any prior announcement, there was Doctor Five just as his creator had originally imagined him. "It was nice to see him wearing his glasses again..." wrote DWAS member Robert Byrne in a review for *TARDIS* magazine. Another writer, Adrian Harris, was no less enthusiastic. "Bidmead shows a real knowledge of Davison's Doctor at its best, bringing him out of his usual, somewhat bland, presentation." Even Gary Russell, reviewing for ***Doctor Who** Magazine* 89, found himself in a rare state of enthusiasm towards a season he had previously dismissed as starting off on a vaguely lame foot. "Bidmead clearly shows that, having had quite a large hand in the formation of the character, he knows Davison best; capturing the charming mix of innocent wanderer yet hard-nosed fighter, averse to dirtying his hands but not afraid of letting people know what he thinks of them."

Davison on FRONTIOS "...an extremely well-rounded script that got hold of the way I saw the part of the Doctor and made his dialogue and actions fit in with this. I enjoyed it because there was really something there to latch on to in rehearsal and make your own." ***DWM* 106**

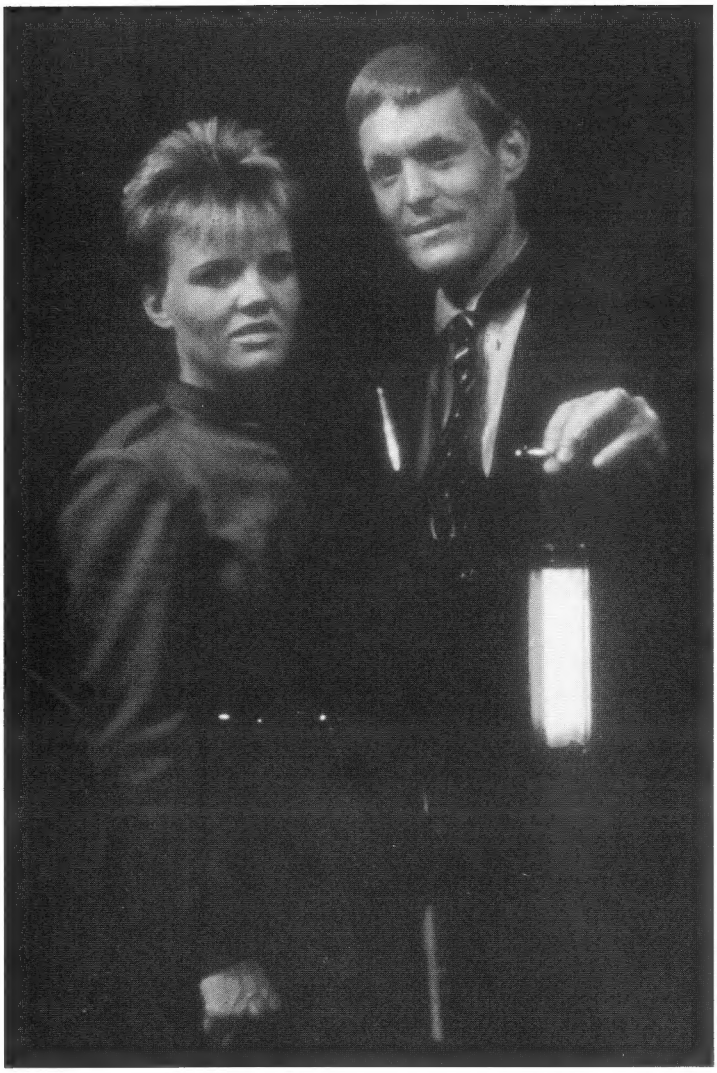
As a story in its own right, however, FRONTIOS didn't receive unqualified praise. Peter Davison's performance aside, many commentators found it badly paced, like fan John Nicholson who wrote in a letters column "Remember the thing you're recommended to do in 2nd/3rd form; start at point one, progress to point two... The problem with FRONTIOS was that point one wasn't started until about the middle of episode two, all previous space being given over to getting conditions right for an operation." Fellow columnist Christopher Denyer was even more scathing. "It bore many Bidmead hallmarks, particularly the abuse of the TARDIS (jettisoning rooms, etc). I dislike this kind of treatment as it removes the air of magic surrounding the machine. The TARDIS is becoming like a clown's joke-car!"

In the end though, the supporters of FRONTIOS outweighed its detractors, voting the serial into third place in the annual *DWM* season survey, albeit by a significantly smaller stack of votes than those foisted upon the silver and gold medallists — respectively THE CAVES OF ANDROZANI and RESURRECTION OF THE DALEKS.

SCRIPT: Christopher Bidmead's all-too-brief return to **Doctor Who** could not have been less auspicious. "Eric phoned me up and asked me to do it" the author explained simply in an interview for DWM in 1986.

From the evidence available, that phonecall took place sometime around late July 1982. It appears to have been period of great enterprise by Script-Editor Eric Saward, with a number of selected writers being cemented for the 1984 season. Johnny Byrne received a commission for WARRIORS OF THE DEEP on September 10th, Eric Pringle was contacted about THE AWAKENING on September 1st, and Bidmead got the go-ahead to expand his treatment into a scene breakdown on August 4th.

Happy to accept the invitation to write a **Doctor Who**, Bidmead



"They wanted the monster element, which was a struggle because I always hated **Doctor Who** monsters - partly because they tend to look cheap, and mainly because they are so limited on dialogue. Dialogue is so important in a low-budget show. It creates the whole effect.

"Part of the complex ideas in FRONTIOS again involved the TARDIS. If you've got a story about gravity and things being sucked through the earth, then why not put the thing a bit further and actually break the TARDIS up? I wanted the Doctor to be no safer than these poor last vestiges of humanity. I wrote it around the time of the Beirut crisis and I was influenced by that. Without imposing any political angle I always felt that **Doctor Who** could much better reflect the sort of things that were happening in the 1980s." **Christopher Bidmead**

was rather more dubious about the subject matter he was asked to consider.

Ironically the sense of threat to the beleaguered colonists is established in the very first scene with a very minimal amount of dialogue. Giving excellent stage directions in a script geared to defining sets, costumes and effects for the creative production teams, Bidmead vividly described his world's hostile environment, the power of his subterranean creatures, and motivations for some of his principle players:-

EXCAVATION AREA. DAY 1

"Captain Revere, Brazen and a select team of uniformed orderlies are excavating with picks and shovels in what we will later discover to be the hollowed-out area under the research room of the colony ship. The walls are shored up with planking, and the ground beneath their feet is crumbling dark rock.

"At a sign from CAPTAIN REVERE the diggers put up their picks. Now that we can study them more closely we notice an air of improvisation about their outfits. The safety helmets they wear have been adapted from space helmets, and their uniforms, although well cared-for, are patched up and evidently much used.

"The Captain kneels to collect a few rock samples, which he inspects carefully before handing to BRAZEN. Brazen looks at the samples in imitation of his master, but with little understanding. He dusts them off on his sleeve and then passes them to one of the colonists, who adds them to a small pile in the corner of the dig. The Captain is studying the ground closely, smooting away the surface debris. We notice a strange honeycombing of the rock beneath..."

In his interview with Richard Marson, Bidmead made quite clear the inspiration behind **Doctor Who**'s newest race of monsters. "The Tractators were based on woodlice. My old flat was infested with them and I used to watch them very closely."

Rather like H.R.Giger's initial concept for Ridley Scott's *Alien*, the silver shelled Tractators were imagined as man-sized creatures when fully extended, but which were capable of knotting themselves tightly together to form an almost impregnable spherical shell when in defensive or hibernation states. He describes their first appearance in episode two thus;-

INTERIOR. A LARGE CAVE. DAY 2

"Norna walks into a large cave. Her lamp reflects back from the smooth walls, giving enough light to see easily. Several large, silver spheres are positioned about the cave, as if she has stumbled across a giant game of bowls...

"...We hold for a moment on one of the silver spheres, then slowly it unrolls into something like a huge, silver woodlouse."

Even grislier is the author's conceived by-product of the Tractators' ability to fuse discarded Earth technology with the mental and physical energies of their human victims. Although better described in his later novelisation, Bidmead was very precise about what he wanted from his cast and the talents of the Visual Effects department:-

INTERIOR. THE CENTRAL CAVE. Day 2

"The scraping, thudding sound of the excavator builds in the tunnel. Tegan stares in horror at what she sees approaching.

"The Tractators' excavation machine emerges from the tunnel: Metal cutter and drilling gear extend from the front. Windows at the side reveal two emaciated colonists and in the hollowed out area at the front of the machine, beneath the cutters, a shadowy figure appears to be wired into what looks like an open cockpit.

TEGAN : It's... horrible! They're corpses.

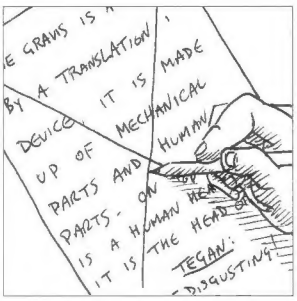
DOCTOR: Not exactly. There's a living mind enslaved in the middle of all that!

"As the machine approaches we see at its head, still living but in a pitifully wasted state, the pathetic figure of:-

TEGAN : That face... I recognise it from somewhere.

DOCTOR: It's Captain Revere.

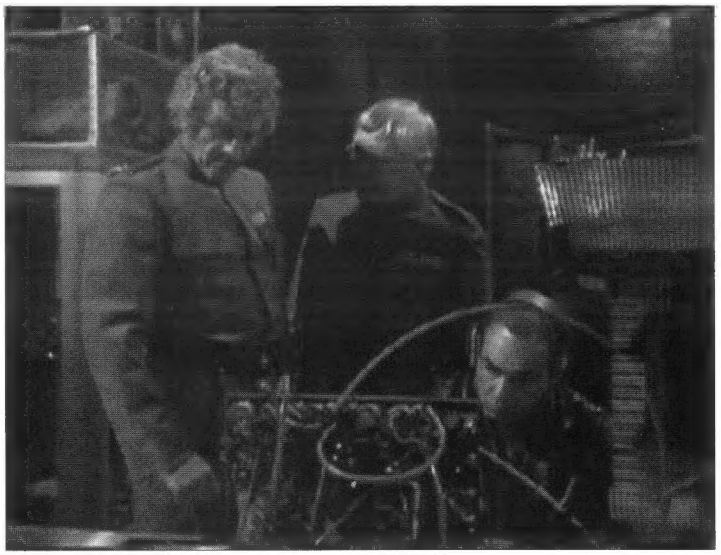
SCRIPT-EDITING:



The bold sweeps of Bidmead's imagination caused some consternation among his BBC kinsmen after a set of scripts, originally titled THE WANDERERS, was delivered to Eric Saward following their commissioning on November 26th 1982.

"I did feel a little annoyed with Chris" was Eric Saward's comment, again to Richard Marson for a *DWM* interview. "He should, after all, appreciate my point of view. FRONTIOS boasted this huge ship with its vast chambers, that he knew we couldn't do in his original requirements. He was, however, very receptive and over the course of that story we had some wonderfully creative disagreements."

With most of the scripts running to over 80 pages



per episode, there was a lot of pruning Saward had to do. The biggest loss, as far as the story's depth was concerned, was to the highly detailed infrastructure Bidmead had elaborated around his society of crashed colonists. Rather as William Golding had done in *Lord of the Flies*, or Terry Nation with **Survivors**, Bidmead wanted to show a civilised community on the edge of reverting to savagery; rejecting the painstaking and onerous burdens of reconstruction, order and self-discipline in favour of tribal strife for short-term selfish gain.

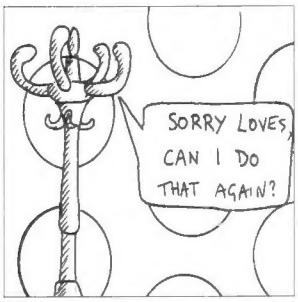
Having lost Captain Revere, the writer's voice of reason and civilisation during the story was Mr Range, specifically listed as, "...A small, grey-bearded man with spectacles". With Cockerill there to represent those happy to embrace a rapid slide into atavistic brutality, his see-saw character had to be Brazen, introduced by the sentence, "The grim, granite face of this hulkingly built man seeming to reflect the last words of the Doctor" (which the audience never hears, as four pages of TARDIS dialogue prior to the opening exchange between Range and Brazen were lost before they even reached the studio).

In the rush to pump up the action/monster quotient, much of Brazen's character development was sacrificed — left only as passages of descriptive text in the script. Early on he is the bully, shutting down the research facilities he sees as wasting valuable resources. Only later, in a lengthy sequence left intact, is he repositioned as the last bastion of order and government, virtually demanding that the colonists do not follow the easy route of the Retrogrades.

Another story parameter left intact was Saward's brief to Bidmead to get rid of the TARDIS console room hat-stand. A hangover from Tom Baker's era, the prop had ceased to have any real value following Peter Davison's gradual abandonment of head-gear after his first season. Whilst never insisted on as pivotal to the serial, even John Nathan-Turner was pleased with the humorous way Bidmead found to divest the series of its redundant piece of woodwork.

More tragic was the loss of an idea Bidmead had had to get around the eternal science-fiction quandary about the way aliens tended to speak the Queen's English. He suggested a hovering part machine-part organic translator built around a human head that would hover in the air courtesy of CSO, but this was vetoed by the Director as overly complex and time consuming for the value it would add to the narrative.

"Chris had written the Gravis should have had a voice translator constantly hovering by his side, enabling him to be understood by the humans. It was a wonderful idea, a solution to the perennial problem of explaining how it is that all our monsters speak good English. However, it was also a tremendous limitation in that we could have got the effect using CSO, but it would have taken a lot of time and effort for comparatively little return. It was nice but it added nothing to the plot and was something of a handicap as far as the direction went. It would have produced an unwelcome third presence in dialogue scenes like those between the Doctor and the Gravis." **Ron Jones, 1985.**



DIRECTOR & TEAM:

Having booked newcomers to direct serials 6M and 6P, John Nathan-Turner opted for a known face to tackle Bidmead's highly challenging material. The Producer wanted an experienced hand on the tiller as FRONTIOS would be the first story since KINDA not to have a single frame of action shot on film. He was already looking ahead to the prospect of once again taking the **Doctor Who** cameras abroad, this time in mid-summer to a holiday destination that would require some serious funding. By stripping one four-parter of its film allocation and grafting it on to the overseas show, there would be sufficient funds available to pay for a whole week on location.

Serial three drew the short straw, and while it would benefit from an extra recording day, nearly seventeen minutes worth of drama would have to be captured in the studio every day if a realistic timetable was to be maintained.

Bristol born Ron Jones, 38, was an experienced studio hand, having begun his broadcasting career as a stage manager in local radio. A veteran of such series as **Secret Army** and **Bergerac** he had previously helmed three **Doctor Who**s, the historical whodunnit, BLACK ORCHID, the largely studio bound TIME-FLIGHT and the Amsterdam filmed ARC OF INFINITY.

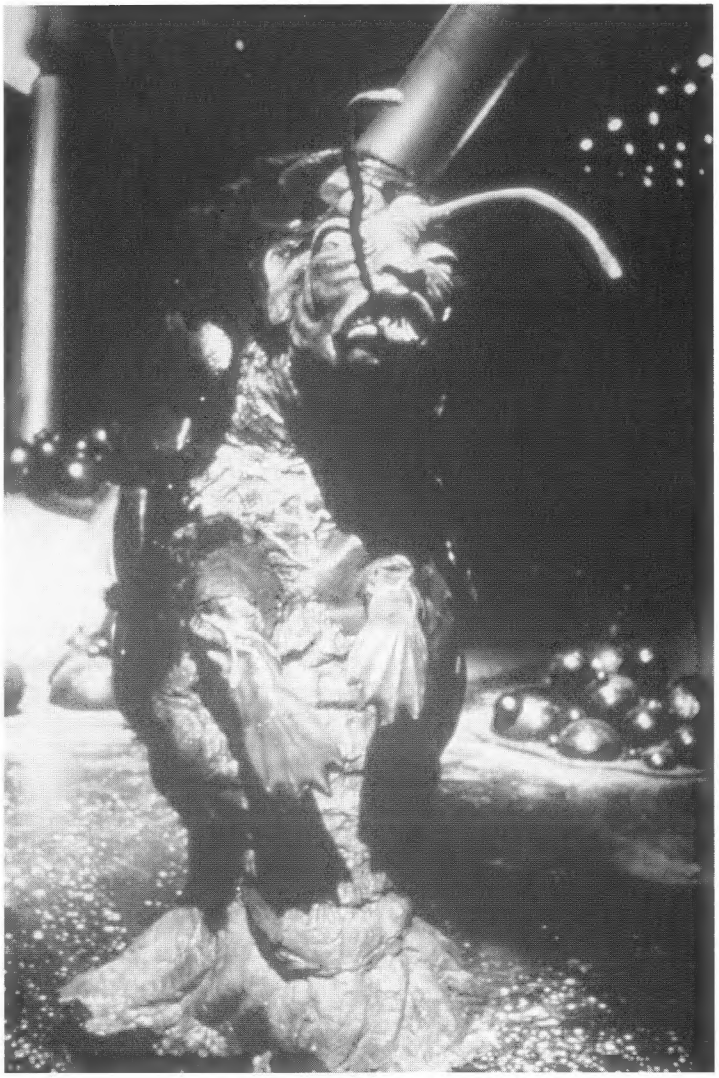
The Set Designer allocated to this show was intended as **Who** newcomer Barrie Dobbins. He did much of the preparatory work, blocking out his studio space and putting together most of the construction blueprints. Then, shortly before rehearsals were due to get under-way, Dobbins committed suicide. With precious little time remaining before first studio, his assistant, David Buckingham was asked to step up and supervise construction.

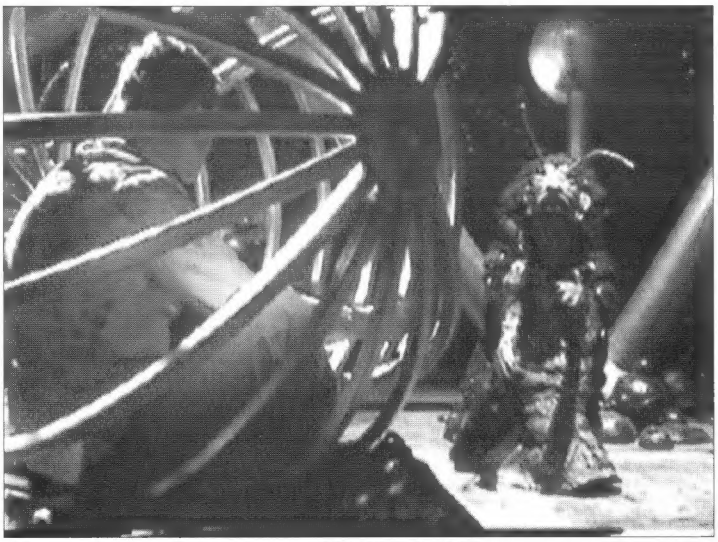
Stepping in to look after Costumes was Anushia Nieradzik, younger sister of Make-up Designer, Dorka Nieradzik. Recently qualified as a fully fledged Designer, this was her first **Doctor Who**. Not so the case with Jill Hagger who was brought in to handle the Make-up overheads after the show's first candidate, Dawn Alcock, was pulled off the programme at short notice. Jill Hagger's previous **Who** credits were THE ANDROIDS OF TARA and the recent FIVE DOCTORS TV movie.

An even more experienced name was that of Effects Designer Dave Havard. Having won his spurs back in the early Seventies, Havard's first **Doctor Who** was PLANET OF EVIL, recorded in 1975. He followed that up with THE RIBOS OPERATION in 1978, but his longest spell on a **Doctor Who** project was for a production which never got onto television screens nation-wide. He was the Effects Designer for SHADA.

With Dick Mills and Dave Chapman brought into their usual corners to oversee Special Sound and Electronic Effects, it only remained for the last remaining seat, that of Incidental Music composer, to be filled by Paddy Kingsland. This would be Kingsland's final contribution to **Doctor Who**. A freelance musician these last few years, Kingsland had served more than ten years with the Radiophonic Workshop since joining them in 1970. With a long track record on radio and television to his credit, including some genre shows such as **The Changes**, one of his major breaks came when John Nathan-Turner awarded the contract for **Doctor Who** music to the Workshop in 1980. FRONTIOS would be his eighth production for the Nathan-Turner era, following in the wake of MEGLOS, FULL CIRCLE, STATE OF DECAY, LOGOPOLIS, CASTROVALVA, THE VISITATION and MAWDRYN UNDEAD. Overall, however, Kingsland would be best remembered for the incidental music for the second season of **The Hitch-Hiker's Guide to the Galaxy** and its TV adaptation.

FRONTIOS needed a strong cast of character actors to handle a





very wordy set of scripts. None were more experienced than 63-year old actor Peter Arne, who was selected by Ron Jones to play the part of Mr Range. Considering he would be asked to play the show's most sympathetic character, Arne's frequent dubbing as an, "unsympathetic, often villainous, character star of films and TV" made him nominally a curious choice.

PETER ARNE

Aged 24 Peter Arne made his debut in the war-time semi-propaganda film, *For those in Peril* (1944). Fom then on barely a year went by without his name appearing somewhere on a British or American-made film. By the time he came to **Doctor Who**, his film credits alone numbered more than 50 titles. Notable among so many were genre productions such as *Timeslip* (1955), *The Hellfire Club* (1961), *Gulliver's Travels* (1963), *The Secret of Blood Island* (1965), *Battle Beneath the Earth* (1967), *Chitty Chitty Bang Bang* (1968), *The Oblong Box* (1969) and *House of Evil* (1976). For the mainstream market contributions included *Men of Sherwood Forest* (1954), *The Cockleshell Heroes*, *Ice Cold in Alex* and *The Dam Busters* (1955), *Khartoum* (1966), *The Shattered Eye* (1970) and *Straw Dogs* (1971). He also played the husband of Sandra (Mrs Davison) Dickinson in the BBC soap opera **Triangle.**

> "I remember waking up one morning, turning on the radio and lying there when the news came over the air. At first I just couldn't believe it. I thought I was simply so wrapped up with the story that I'd heard it incorrectly. When it was confirmed we were all shocked and deeply affected, but we had to go on."
>
> **Ron Jones, 1985.**

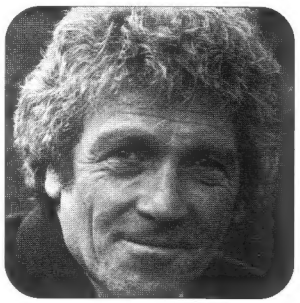
Cast as Mr Range, Peter Arne attended one read through and a costume fitting before the news broke of his brutal murder at home in his flat. News of this "gay killing", as many of the papers chose to sub the story, made front page news, but the business of programme making had to go on. At short notice the role was reassigned to 58-year old actor, William Lucas.

WILLIAM LUCAS

Born in Manchester, April 1925, Lucas was just the right age to be enlisted into the Services for the last few years of the second world war. Leaving the Navy after the cessation of hostilities, he trained at the Bradford Civic Theatre under Esme Church and Rudolph Lakan, two prominent entrepreneurs of their day.

Establishing himself as a character role player his first film part was in *Portrait of Alison* (1955). Genre roles punctuated a very rich career thereafter, beginning with *Timeslip* (1955) alongside Peter Arne, followed by Hammer's *X the Unknown* (1956), *Shadow of the Cat* (1961), *Touch of Death* (1962), *Night of the Big Heat* (1967), *Tower of Evil* (1972) and a voice-over part in the follow-up to Richard Adams' animated classic, *Watership Down*, *The Plague Dogs* (1982). Other notable films include *Bitter Harvest* (1963), *Black Beauty* (1972) and *Man at the Top* (1973).

On TV his face was best known to begin with for the role of Inspector Lestrade, playing opposite Peter Cushing's Sherlock Holmes in the BBC's first colour adaptations. In the Seventies he became better known as Dr James Gordon in the series **Black Beauty** and **The Adventures of Black Beauty**. Lucas also played Gordon in the 1972 spin-off movie. Other notable TV credits included **Rigoletto** (title role), **Mogul**, **Warship** and **The Spoils of War**. In 1993/93 he would play Stanley Webb in BBC1's ill-fated soap opera, **Eldorado.**



PETER GILMORE

The big name on which FRONTIOS was marketed was that of Yorkshire born and raised actor Peter Gilmore. Born in 1932 he rose to international TV star status in the Seventies with his rugged portrayal of the Merchant sea Captain James Onedin in BBC's **The Onedin Line.** An instant success after its birth in 1971, the programme ran to eight seasons before the corporation finally ran down its mast in October 1980.

Before **The Onedin Line**, Gilmore was mostly known for supporting roles in a succession of British films, including *Time to Kill* (1955), *Bomb in the High Street* (1961), *Oh What a Lovely War* (1969), *The Abominable Dr Phibes* (1971) and the Brian Hayles scripted *Warlords of Atlantis* (1978).

Comedies were frequently a staple before **The Onedin Line** launched. After an appearance in *Carry on Cabby*(1963) Gilmore was hired to feature in *Carry on Jack*(1963), *Carry on Cleo* (1964), *Carry on Cowboy* and *Doctor in Clover* (1965), *The Great St Trinian's Train Robbery* and *The Jokers* (1966), not to mention *Follow that Camel* (1967) (which gained the *Carry On* suffix once a few legal problems were sorted out), and the one-off revival *Carry on Columbus.*

After the movie *A Man Called Intrepid* (1979), and the ending of **The Onedin Line**, Gilmore found himself out of work for a period, haunted by typecasting from his biggest success.

LESLEY DUNLOP

A native of Newcastle on Tyne, Lesley Dunlop was born in 1956. She was still in her teens when she made her stage debut, with roles in a production of *Other Worlds* for the Royal Court Theatre, and *Playing with Trains* at the RSC.

Film roles came her way predominantly in the Seventies with *A Little Night Music* (1977) where she met her husband-to-be, fellow actor Christopher Guard, Polanski's *Tess* (1979), *The Monster Club* and David Lynch's *The Elephant Man* (1980).

On TV roles included such plays and series as **South Riding, The Rose Garden, Penmarric, Play for Love, The Red Shift** and **Waters of the Moon**. An initial taste of fame came with the first series of **Angels**, a drama/soap about life among junior nurses in a London teaching hospital. Although she only featured in the first series, her popularity was such that she quickly found herself the target of media attention, called on to open supermarkets and make game show appearances. After FRONTIOS, Dunlop returned to **Doctor Who** in 1988 for THE HAPPINESS PATROL, before replacing Eve Matheson in **May to December** for the Anton Rodgers sitcom's later seasons.

JEFF RAWLE

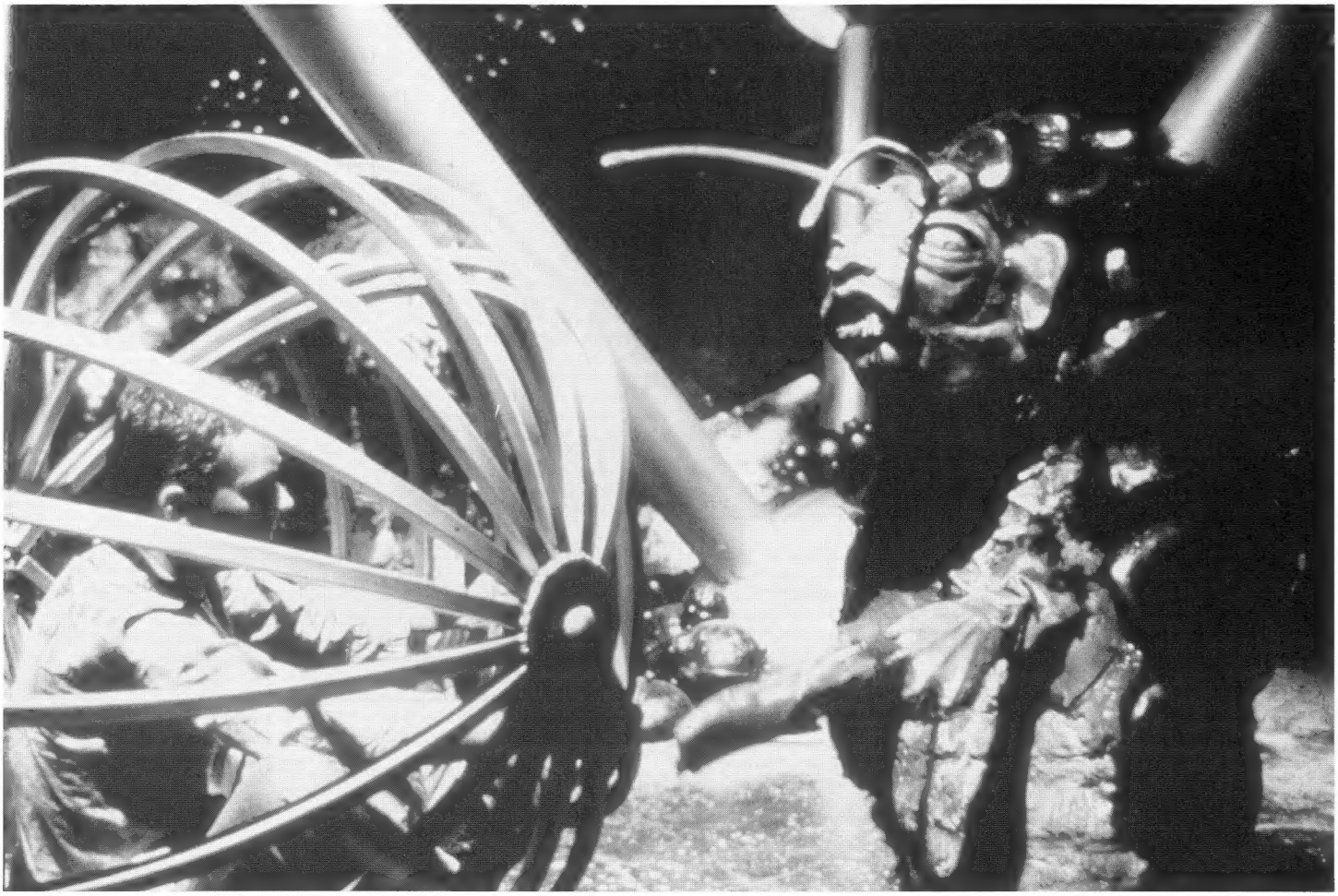
Both a writer and an actor, Jeff Rawle was born in Birmingham, 1951. Possessed of eterally youthful looking features he worked at the Sheffield Playhouse for a number of years before enrolling for formal training at LAMDA. Then, just a few weeks after his graduation, Rawle landed the plum title role in the TV series **Billy Liar**, based on the book and film of the same name by Keith Waterhouse. **Billy Liar** ran for two series, after which came appearances in **The Water Maiden**, *Death of a Young Man* (**Play for Today**), **Love on the Dole, Minder**, **Wilde Alliance, Juliet Bravo, Bergerac**,**Singles Weekend, Minder** and of course his role as George Dent in Channel 4's hit award-winning comedy, **Drop The Dead Donkey**.

While some minor film parts came his way, such as *A Hitch in Time, Correction Please* and *Crystal Gazing*, his main success continued to be the stage. Major plays *Five Finger Exercise, Equus* (at the Albery Theatre), *Once a Catholic* (at Wyndham's), *The Arbor* and a stage version of *The Elephant Man*.. As a writer, his credits include*The Young Poisoners' Handbook.*

SET DESIGN:

If the intention of moving FRONTIOS totally into a studio environment was to save money, then it was a short lived hope. Unlike so many other **Doctor Who** shows, little of the set manifest could come from stocks in a props warehouse. To begin with, the Colony ship was clearly defined as having crashed sideways into the soil of this world, burying itself at an angle raised from the horizontal. Therefore, many of the key sets would require dressing to look as though they were on a slope.

Secondly, Christopher Bidmead's storyline stipulated two distinct types of subterranean tunnels; a natu-



ral configuration of jagged passageways of the type commonly found in TV dramas, and smoother, more curved tunnels, symptomatic of the Tractators' presence, that looked anything but naturally formed. Indeed the latter were specified as looking shiny and smooth with polished reflective surfaces, a by-product of the excavation machine's boring.

Ron Jones and the set Designer wisely agreed to shoot all the underground caves scenes in Block One, and all the above ground action in block two. There were budgetary considerations as well as logistical ones behind this thinking. As well as helping Lighting Manager John Summers with planning levels of illumination, Bidmead's script had the Tractators appearing only in the underground scenes. Thus the six artists hired to play monsters only had to be booked for one three day session. Or so it was thought...

There were eight sets in all of varying size created to fill the confines of studio TC6. Flats for the natural caves were easy to find from scenery stores, although David Buckingham and John Summers cheated by using black drapes hung with black and silver painted jabolite rubble to give an artificial sense of size.

The most complicated set was the excavation area immediately beneath the ship. Size-wise a small, "busy" set built over a tray of Fuller's Earth, the whole construction had to be shaped around a scaffolding tower so that above the pit perimeter part of the interior of the research room set could be seen.

The "TARDIS cave" was a mixture of stock scenery flats, the standard TARDIS interior walls and doors — for once seen in their component states — with customised rock frames around the familiar roundelled panels to blend them into the background. Several of the elements in this set had to be easily moveable for the sequence in episode four where the ship is drawn back whole again.

The so-called "large cave" and "central cave" were part natural in background, but with strong, visible evidence of Tractator inhabitation. Keeping the rolled-up sphere motif Bidmead's had used to describe his creatures curled up, all around the floors and walls were scattered other prop spheres and hemisphere, suggesting eggs or other smaller Tractators in hibernation. While not fully roofed over, these sets were punctuated by rising, golden pillars supporting hemispherical trestles aimed at giving the illusion of giant pit props in place. From the middle of the floor in the central cave a spiral pattern radiated out to the perimeter walls, suggesting that here was the hub of the Gravis's plan to harness a planet-dragging gravity beam.

For the excavated tunnel complex, with its inevitable junction point, the Set Designer used huge sheets of clear, buckled plastic sprayed with thin layers of coloured paint. The Lighting Manager administered the artistic 'coup-de-grace' by lighting these sets from the side instead of above to create more interesting shadows. Not a few reviewers, writing in the months following transmission, would comment favourably on this serial's use of effective lighting.

The final set for Block One, and the only one nominally above ground, was the medical shelter from which Plantagenet would be dragged to his fate.

For Block Two half a dozen main sets were needed, including the fully assembled TARDIS interior. The two biggest sets were the High Street with its rows of makeshift huts and the entranceway to the colonists' ship. As these were exteriors, the horizon was provided by a massive cyclorama which ran fully around one end of the studio. Again, John Summers provided an atmospheric eerie red lighting around the perimeter and softer, more orange tones closer to the cameras.

The creative lynch-pin of all the above ground sets was that everything had to look as though it had been cannibalised from some other part of the giant vessel. Hence the hull walls were pockmarked by sections of flooring, suggesting hasty repair jobs, the huts outside fabricated from sections of discarded fuselage, even the state room looking as though its podium was wrought from sections of engine housing. For recording Block Two the Design department furnished a mock-up etching of John Beardmore as Captain Revere.

As with the caves, the size of these sets was artificially bumped up by the ages old trick of creating false perspectives. The upper sections of the hull, for example, were physically far closer to the artists on set than their smaller scale would suggest to the camera lenses. Even so, the biggest stage in TV Centre (TC1) would not have been large enough to house all of Christopher Bidmead's ideas about the supposed size of this ship. Fortunately Electronic Effects would come to the rescue, negating the need for traditional glass shots to achieve a sense of immensity.

COSTUMES: Tegan won a different costume for this story, but the look remained the same. A multi-coloured zebra-patterned top in red, black and white, with a black leather mini-skirt. The Doctor and Turlough were costumed as usual, but for the first time since KINDA Peter Davison was re-united with the half-moon spectacles which did so much to emphasise his supposed age coupled with youth personality.

Originally a military expedition, the colonists were all uniformed, the colours of their outfits being, without exception, grey with black accessories — boots and belts — and red piping. Plantagenet's "robes of office" were less formal than the rest; silver-grey tunic and trousers in a shiny, satin-like fabric, although even here it was suggested the material might have been pulled

The Tractators: A major challenge for Anushia Nieradzik, and the serial's largest single costume cost was the six Tractator costumes. Right from the start the Production team had wanted to capitalise on the notion of these creatures uncurling from their dormant, foetal ball shapes to rear above their victims once fully unfurled and radiating their irresistible gravity fields. Then, once a victim was pulled into the clutches of these neo-woodlice, the monsters would wrap around their helpless prey like a coil. Towards this end Ron Jones intentionally hired tall professional dancers capable of executing such ballet-style movements without losing their balance.

The basis of each Tractator costume was a fibreglass cowl that sat on the actor's shoulders, secured by straps under the armpits. By flexing his own jaw as he spoke the artist playing the Gravis, John Gillett, could move a peg under his chin causing the mouth flap of the mask to move. Wires, running inside the hood, connected the antennae to hoops around each wrist, just above the sculpted latex gloves. The length of these antennae meant they would twitch very visibly for the cost of very little discernable movement by the artist inside.

Hung like bells of fabric below the hoods, the soft underbellies were cut and sewn from a rough, hessian-like material, coated in latex solution and textured. This rubber layer was not very thick as the idea was still that the bellies would fold up neatly under the carapace. So that their gravitational powers could be shown on cue, the bellies were painted with strips of "Scotchlite" paint such that these veins would glow when lit by front axial projection. Unfortunately, as with the Exxilons in DEATH TO THE DALEKS, a radiance was only visible when the light was falling on a costume surface exactly perpendicular to the line of light direction. Thus, only really once in episode four is the effect ever really achieved.

Easily the heaviest part of the costume was the black carapace. Fashioned from horse-shoe shaped flanges of moulded black rubber in varying diameters, these elements were strung together along the back-bone line and connected to the hood behind the ears and antennae. The flanges were concentric and designed so they could interleave and slide over each other as the Tractators curled up.

Sadly the Tractators were never to realise their full potential. Once assembled and fitted to the actors it was readily apparent the bulk and weight of these costumes made them too cumbersome to permit anything but the simplest of shuffling and stretching movements. Furthermore, thanks to the head and humidity of late August weather, the interior of these suits became fiendishly hot, with only the thin viewing grille in the mouth admitting any air. Emergency provisions were made during each day of shooting for the dressers, each armed with a small cylinder of oxygen plus hose, to spray jets of cold gas up inside the costumes after each take.

from some insulation material found aboard the craft.

Thereafter the costumes were grouped into three distinct types. The officers wore thicker, wool substitute uniforms which gave them sharp, slick outlines. Some of Brazen's hastily assembled guard elite also wore this attire. Strips denoting rank were either worn on armbands, across the left breast of the tunics, or both. Range, the Science Officer, was SO1. Brazen, First Orderly, was O1. The Warnsman sported WM, the medical team were identified with OV (Orderly Volunteers??) and Plantagenet bore the legend, RUPV.

The Orderlies' uniforms were more functional; two-piece jumpsuits in a shiny, easily crumpled fabric designed to be loose fitting for more menial duties. Many of them wore matching peaked caps.

The Retrogrades wore the vestiges of colony uniforms, but many of these were tattered and augmented by other ragged scraps of green coloured material, visually underscoring their scavenger lifestyles.

The helmets worn by the guard orderlies, with their distinctive green band around the crown, were Costume Department stock helmets originally fashioned for the Federation storm-troopers of **Blake's Seven**, but worn here without the matching gas mask attachments. Allegedly no-one on the production team heard about their so-obvious pedigree until the second or third day of studio recording. John Nathan-Turner's comments on the news of this embarrasing reference to another series were never recorded.

MAKE-UP: Yet again, Make-up got off very lightly for a **Doctor Who**. The main effort required of Jill Hagger's team was dirtying down all the cast members to create theircastaway look. The colonists' hair was all cut short in a cross between Punk and Roman-styles.The exception was Peter Gilmore who was allowed to keep his distinctive thick mop of curly hair and Seventies-style sideburns.

Most of the Rets, or Neo-Rets, were deliberately styled with straggling beards or wigs of matted, lank hair, re-inforcing their perception as drop-outs from Revere's society. Some of their faces were scarred with sores and skin discolourations in addition.

The aftermath of the meteor storms saw a good many extras having blood and wound make-up applied to their flesh.

The grisliest make-overs hardly made it to the finished transmission prints at all. The excavating machine was due to have three human operators; a seated pilot, whose head alone would be visible atop the steering mechanism, and two drones fastened into the rear compartment whose limbs and torsos would be seen fused in with and working the polishing attachments. As an important consideration was that the actors should all look drained and under-nourished, two very thin actors were engaged to play these roles. Stripped to the waist, their faces and upper bodies were streaked with veins of bloodied flesh-tone overlaid with ageing make-up. A similar fate was accorded the head of Captain Revere when seen in the machine.

VISUAL EFFECTS: The biggest prop designed and built in-house by Dave Havard's team was the excavating machine, designed to support four actors — two drone polishers, an unseen pilot pushing along the whole contraption and John Beardmore as Revere , who handled most of the steering chores.

A mixture of timber framing, plastacard and metal components, the excavator was built over a low wheel-based trolley. At the front were a small set of cutting jaws and a scoop, all operated by the unseen driver. A battery drove the two paddle-wheel shaped tunnel grinders, one behind the visible driver and the other one right at the back. The smoothing and polishing props, worn by the two drones would be seen poking through the rear inspection hatch as required.

Ron Jones hated the prop. Protesting that it looked more like an airport buggy fitted with Meccano, he refused to shoot more footage of the machine than was absolutely necessary, and even then only in close-up to hide the device's true contours. As late as post-production more material was chopped so that, eventually, the two drones in the rear compartment were never seen in finished prints of the story.

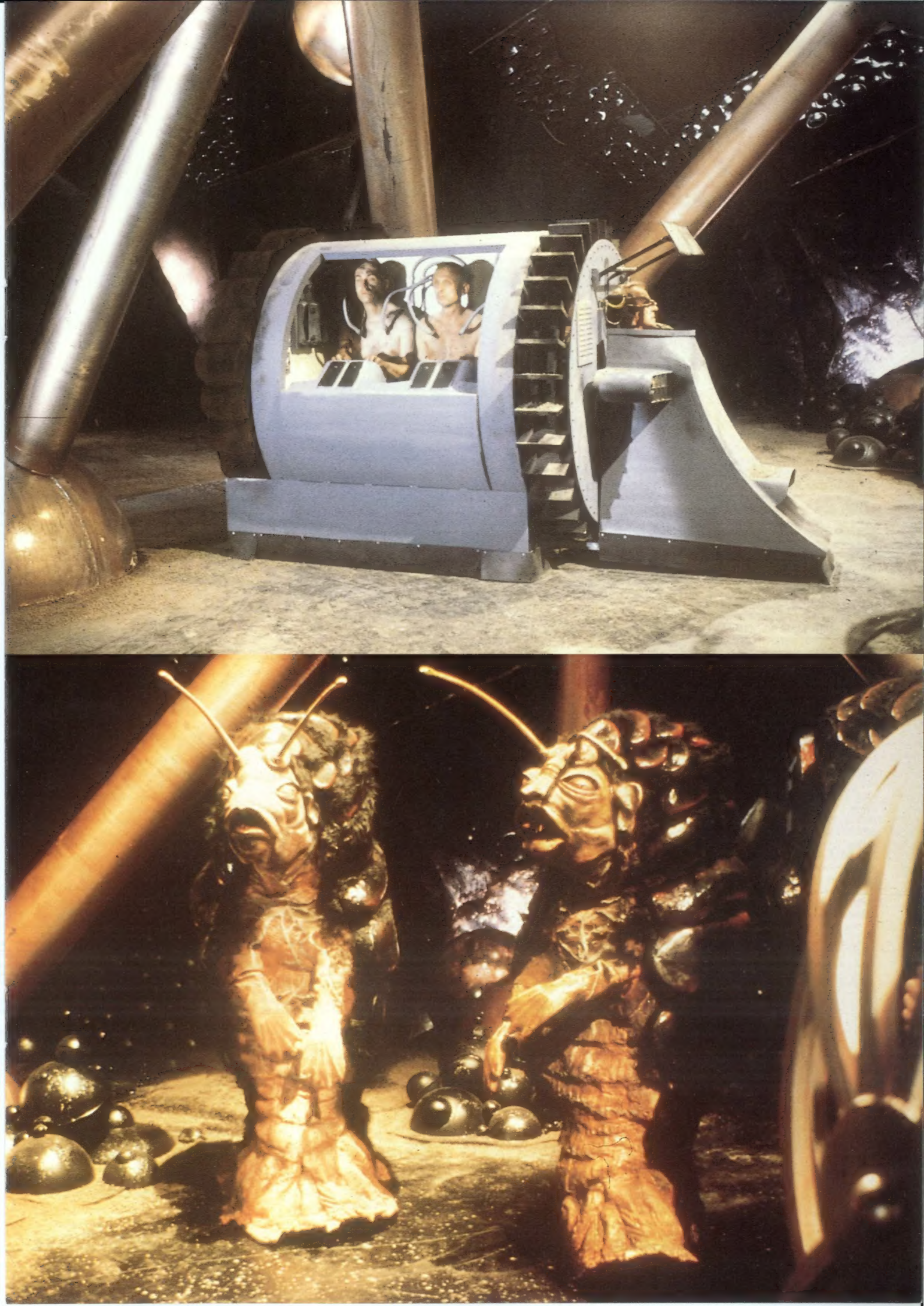
Less contentious were Havard's ideas for showing people being sucked into the ground. The script described the ground becoming pitted, like Swiss cheese, as the Tractators exerted their energies towards the surface. Managing this expectation called for using one of the oldest effects stunts in the trade. Fuller's Earth was poured liberally over a twin-ply wooden board. The top board was pitted with variable sized holes, the bottom layer was a smooth sheet of wood. As the camera turned, shooting in close-up, the underneath board was pulled away, letting the soil drop through the holes and slots, leaving holes behind. Just such a technique had been devised for creating the footprints of an invisible monster in the Fifties film *Forbidden Planet*, and was just as effective in the Eighties.

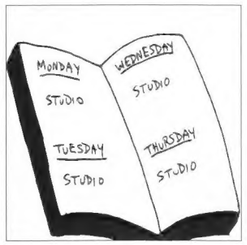
Another old movie trick was the acid burn on the floor, as some drops spill from a phosphor lamp. The lamp props themselves were battery powered neon tubes, with more clever lighting by John Summers enhancing the green gel glow through their coloured cylinders. For the close-up acid burn shot Havard replicated a stunt from Ridley Scott's *Alien*; dripping acetone onto a painted sheet of polystyrene and shooting the corresponding chemical reaction.

The deadly meteor showers were an early requirement. Showing their impact was simple, requiring little more than some easily concealed pyrotechnic charges out on the high street set. More difficult was demonstrating the lethal hail of blast debris. Havard's team devised a powerful spring-loaded mortar tube which could be packed with lightweight chippings of polystyrene and jabolite. Firing this mechanism towards crowds of fleeing extras showered them with coloured plastic granules, but without injury.

A lot of stage trickery borrowed from the theatre was used to embelish moments in this serial. Smoke guns were used to give a misty look to exterior shots of the colony following the bombardment, while flying wires and pulleys were employed for the multiple shot composed sequence of the TARDIS walls whirling back together again in part four.

There was a fair amount of miniature work too. The view of Frontios seen on the TARDIS scanner screen was a composite shot of a planet model plus a "star box" background. The slab-like contours of the downed ship, with its stubby winged port and starboard engine nacelles, was a table-top model sunk into a mound of Fuller's Earth and shot on video in the studio. Ron Jones was not overly impressed with top-down shots of the vessel on its model landscape, but was more favourably disposed towards the results he got shooting Havard's miniature from the side, with the cyclorama in the background, for later matting into a composite establishing shot of the hull with actors milling around in the foreground.





PRODUCTION DIARY:

Saturday August 13th 1983 Director and cast assemble at the BBC's rehearsal rooms in Acton, west London, for the initial run through of the story. Despite this being the holiday period Peter Davison, Janet Fielding and Mark Strickson have had a scant nine day's off since completing studio work on THE AWAKENING. Rehearsals continue through until Tuesday, August 23rd.

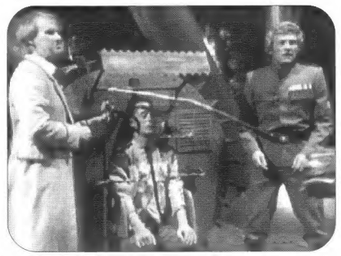
Friday August 19th While Ron Jones rehearses the current Doctor and his companions for FRONTIOS, John Nathan-Turner unfurls new companion Peri and the future Doctor, Colin Baker before the nation's media for a two hour Press call, interviews from which makes the six o'clock and nine o'clock BBC news that night.

Wednesday August 24th The full artistic and technical complement of FRONTIOS gathers in studio TC6 for the first three day recording session. As there was no filming for this serial, all the studio days will be long ones with an average of just over sixteen minutes due to be completed each day. On plan this ought to be no problem as each day's recording slots will run from 14:30 to 17:15 for the afternoon periods, and 19:30 to 22:00 for the evenings. The exception is today when an early 16:30 finish for the afternoon is rostered.

The very first scene before the cameras is the very first sequence in the story; Captain Revere's pinioning underneath a rock fall and his subsequent disappearance into the soil of Frontios. Despite being a pivotal character in the story John Beardmore, as Revere, has no lines to say and so the dramatic weight of this scene has to be carried by Peter Gilmore — no easy matter in a sequence heavily dependent on cutaway shots for effects work as the roof gives way, showering the set with prop debris and smoke. This sequence ends up having to be shot more than once due to the debris filled hopper, positioned close to one of the cameras to give the rock fall a greater dramatic impact, jamming as the Effects assistant tries to trip the trapdoor release mechanism.

Still in this set the action jumps to episode two with Turlough and Norna's descent from the research room into the tunnel, then to episode three, to Brazen's ambush of Range over the matter of the "Disappearances" file. Further scenes in this area for episodes three and four followed, each one needing to be recorded twice — once in the excavation area, secondly above ground in the cut down representation of the research room.

The Tractator performers are not required until the evening. By this point Bill Cooper has been replaced at short notice by William Bowen due to the former's problems with heat and claustrophobia inside the costume. The pivotal scenes this night are the raw tunnels and central caves scenes featuring the excavating machine, which in turn requires John Beardmore to return as the emaciated and dying Revere. All scenes with this prop are shot in sequence leading up to the attack by Brazen's orderlies and the chief's sacrifice to save his monarch. During post-production a spark generator will be used for the electrical zap between the machine and the Gravis when Plantagenet is forcibly disconnected.



The most difficult shots of all to do are those where the machine is going berserk, its tentacles reaching out to latch onto a new operator.

Thursday 25th August Moving across the studio, the next set to be illuminated for recording is the part cave/part TARDIS interior. These comprise all the junctions and corridors outside the main console, including the doorway which will take Tegan through to a reunion with Turlough and the Doctor. Scenes recorded here are almost entirely in story order, the only shot which is not possible being the Gravis's POV first sight of the console room as seen through the doors. That is left as an electronic zoom to be done in Block Two. For a number of reasons these scenes go anything but smoothly and what should have been part of the afternoon session takes up most of the time before dinner.

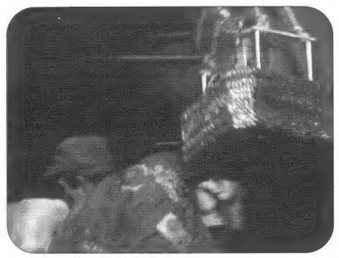
These is enough time, however, for cast and crew to begin shooting all the sequences in the remaining caves and tunnel sets. Yet more delays ensue as more time than scheduled is needed to record various shots of victims being drawn through the underground complex by the Tractators' power. For these scenes the victims have to be strapped into harnesses attached to wires. Stage hands, operating out-of-vision, pull the artists along the smooth(-ish) floor as directed. Several retakes are ordered as the wires become all too visible.

The cave shots continue into the evening session, which has nominally been set aside for all the scenes in the medical shelter. With ten o'clock rapidly approaching Ron Jones and John Nathan-Turner reluctantly agree to shelve eight scenes located around the tunnel junction point until second studio. Various attempts to rehearse and record a Tractator entwining itself around Mr Range all fail due to the restrictions of the costume and are slated for a rewrite before Block Two. Anxious to win back lost minutes the Director starts work on the medical shelter scenes, but has to abandon the very last planned scene; an effects based composite of Plantagenet being drawn down into the soil.

Not as easy as it sounds, the shot requires the victim to lie in a huge tray of painted cork filings, and then scrunch himself down into this mound of granules, by subtle body twisting, until the cork begins to cover him. Finally the hapless colonist vanishes as an electronic wipe of static "shash" is faded over his picture, tinted grey to match the colour of the granules. This shot too will need deferring.

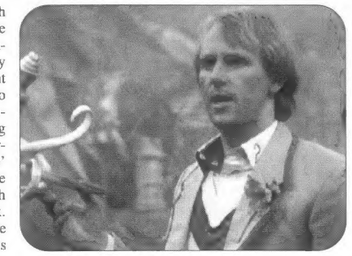
Friday 26th August. The medical centre disappearance of Plantagenet is the first sequence of the day to go in the can, followed by a mopping up of the remaining scenes on this set. After that, it's back to the caves to shoot another tranche of caves and tunnels footage. Yet again these are problems with the mobility of the Tractator costumes and their stubborn refusal to flare under front-axial projection lighting when required. After a good many attempts the Director decides to postpone these dozen or so action shots until the next studio by when it will be possible to do a lot of these sequences using electronic effects.

The overall impact is that some ten scenes are still outstanding by the wrap of Block One. As they are crucial to the action these scenes cannot just be dropped, so David Buckingham, the *in loco parentis* set Designer is handed the task of rethinking the layout of Block Two to incorporate some caves, while budget provisions must be found to rehire some of the Tractator performers. FRONTIOS is not going to be the budget-saving serial the Producer had hoped.



Saturday 27th August 1983 A weekend start for Block Two rehearsals due to the impending Bank Holiday which will halt all work on the serial for twenty-four hours. The number of speaking artists rostered for these rehearsals is bumped up by all the additional artists engaged to play colonists, orderlies and retrogrades, who had not been required for all the underground scenes. Due to the remount some, but not all, of the Tractator performers are present too.

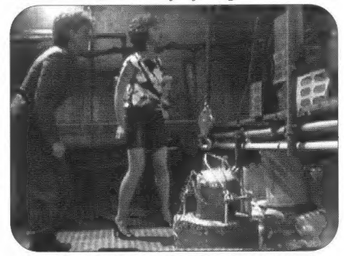
Wednesday 7th August 1983 Overnight studio six has been transformed to encompass the many large and small sets of the above ground scenes. First off the mark is the arrival of the TARDIS, preceded by an establishing scene of the high street around the exterior hull of the space vessel, with colonists racing for shelter as the warnsman sounds his klaxon. Essentially an action scene, a great many activities have to occur at just the right moment; pyrotechnic charges have to explode while scurrying extras are running by, a smoke machine is wafting plumes of vapour in the arena, the mortar firing its ammunition of 'rubble' must not cause injury, and amidst the melee, the TARDIS must appear through the traditional use of rollback and mix.



Shortly afterwards another episode one action scene outside the ship is recorded; the acid jar, swinging in its harness, catches the warnsman a glancing blow and causes him to fall from his observation post. Due to the potential risk of injury, stuntman Steve Emerson substitutes for the regular actor, Jim Dowdall, in this shot. Emerson is also billed to appear as one of the "fighting orderlies" in a later fight sequence with the retrogrades, many of whom will also be played by stunt performers.

Cementing a precedent which will be used many times in the era of Peter Davison's successor, Ron Jones records the cliff-hanger to episode one twice — once ending on a crash close-up shot of the Doctor, and once with the action leading smoothly into a continuation of the scene. Although reshooting cliff-hangers is hardly new, the rapid zoom-in to a dumb-struck look on the Doctor's face would become something of a **Doctor Who** cliché in seasons to come.

After lunch the focus of attention moves to the inside of the medical shelter, a set directly adjoining the hull exterior entranceway.



Beginning with the episode two scenes of Brazen and his crew trying to batter down the gates Tegan has secured with a broom handle, Jones alternates the next few sequences between action in the centre, out on the high street, and in the entranceway as seen from outside. At last Visual Effects gets an opportunity to try out its cork chippings tray for the moment where Cockerill begins to get dragged into the ground, only to stage a 'miraculous resurrection' moments later.

For the final high street scenes, destined for the end of part four, the cast is due to be joined by William Lucas., the first time he would have been on-set today. During the intervening period between recording blocks, however, Lucas has contracted a bad dose of flu. Suffering a high temperature, clogged nasal passages, and a swollen throat which is making speech difficult, he asks to be excused this first day of recording. Despite the backlog of work left over from Block One, Ron Jones agrees.

Thursday 8th August 1983 The postponed farewell scene is the first to go before the cameras today. Recupera-

Continued on page 15

"We're all in the same shell-hole!"

Conceptual Science Fiction or Glorified Fifties B-Movie? TAT WOOD Decides...

IT HAS BECOME customary to review FRONTIOS-as-broadcast as the original story we now know with bits missing. Those bits are general considered to have been the whole point of the story, and the four episodes shown are therefore a fascinating failure.

I would like to argue the opposite. not just because it can be done, although there's a lot to be said with disagreeing with the bulk of recieved opinion in fandom in principle, but because I have come to think that shifting our attention back to the seemingly obvious is more in keeping with Bidmead's approach. More to the point, it's how Ron Jones made his last three stories as director so much less routine than his earlier outings.

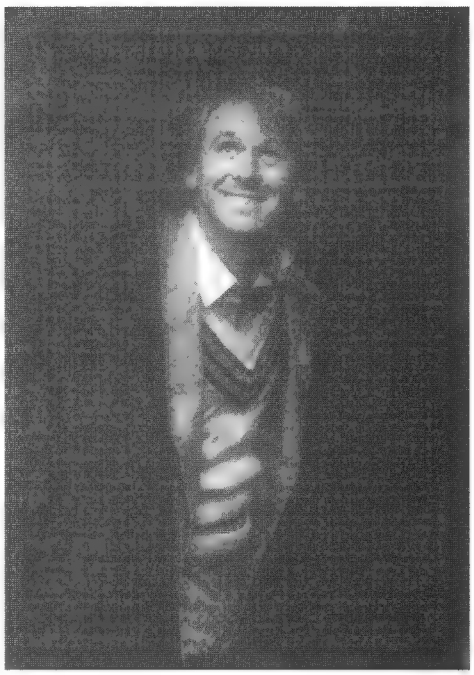
Three obvious things about FRONTIOS to get us started. It's about a planet where the humans are under seige, it looks somehow retro and there aren't any old monsters in it. Humans under seige have traditionally been in a scientific establishment, enclosed from the world and beseiged by an invading force of invinciple monsters with zap guns until the Doctor, who has somehow persuaded the authorities that he can help, furnishes the humans with a counterweapon and uses this to buy time for a nice compromise and a cup of char. Sort of like WARRIORS OF THE DEEP. In FRONTIOS there's an entire planet lain seige, farms, a township and what's left of the hospital, and it's been happening for a generation. the colony is held together by a conspiracy of silence (and here we can see, with hindsight, the thinking which went into its nearest sister-story, FULL CIRCLE) and the need for food rations. Scientific enquiry is a genuinely subversive activity.

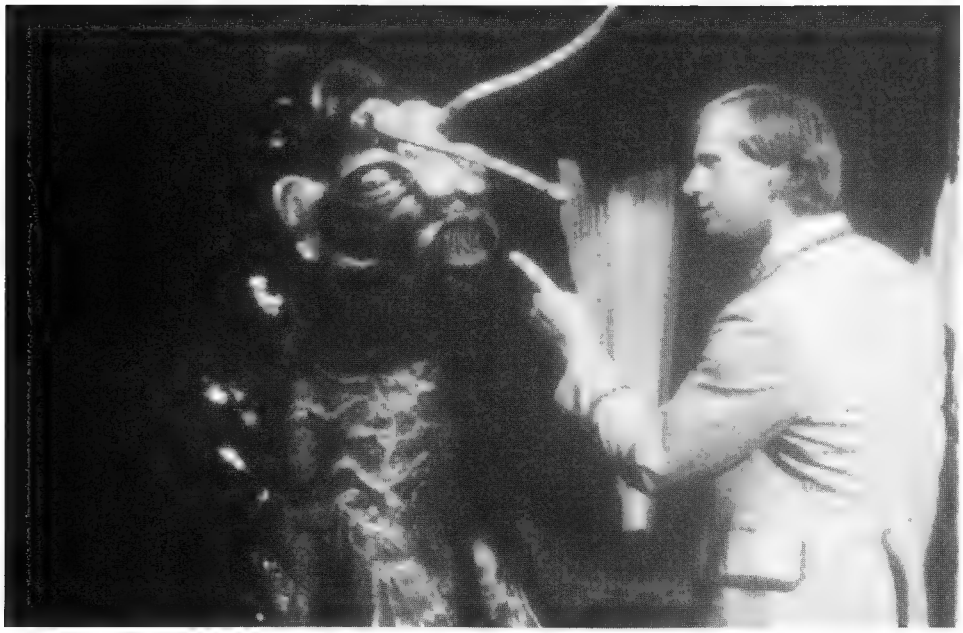
In the traditional **Doctor Who** way of doing things we can confidently predict that the Doctor will arrive, investigate, recognise something, intervene, rescue his sidekick(s) and leave. After ending up in the Veruna system all of this is upended. Turlough decides to explore ("it would be rather fun to go down, wouldn't it?"), they are prevented from investigating by circumstances and Captain Revere's orders, Turlough breaks those rules, recognises something and is incapacitated. Tegan rescues the Doctor and for much of the story it looks like they are there for life. This would be irrelevant if this story had taken place in an earlier season, but Season 21 was engaged in a series of radical critiques of the programme's cliches. The Doctor has to step out of character in every story except THE AWAKENING, committing genocide, forced into executing either Davros or the High Council, killing Kamelion and the Master, crashing a spaceship to prove a point and throttling Peri. This would therefore appear to have been a Saward-inspired move, one of the Big Ideas he had once a year, such as Greek Choruses in Season 22 or the Trial format.

Yet it ties in nicely with Bidmead's all-purpose formula of creating a stable, if weird, planet or society then throwing the Doctor at it and seeing where the fault-lines occur. In this story he is in big trouble if he is seen to interfere but as he can't use the TARDIS and has nowhere else to go he doesn't have the option. The society with which he interferes is one so accustomed to the stark choice of unquestioning loyalty or death that compromises they made to a temporary setback thirty years ago have become their way of life. It's difficult not to hear echoes of the post-war era when rationing had become habitual and the public were encouraged to think of their sacrifices as being in the National Interest.

Which brings me to obvious point two. The entire story looks like an attempt to recapture the *TV21* 'Dalek' strips, themselves a knock-off of Dan Dare, which in turn leaned heavily on plans for the post-war Jerusalem of New Towns, the NHS and atomic power. The Tractators' machine resembles the big steel atom in Brussels, and is accompanied by a buzzing and warbling out of the van der graff-powered labs of mad scientists of yore. There's a glass-shot of inside the ship which simply drips *Forbidden Planet*-ness. Ron Jones was one of the few 1980s directors to have a clue how to light **Doctor Who** and as this and his two subsequent stories shown he had an idea of how the programme could be more **Who**-ish, more like the public folk memory of the programme than the formica and green goo habits into which it had fallen by this stage. The twentieth anniversary celebrations had highlighted the nostalgia for the design elements and atmosphere, whereas those making the series had been banking on plot and characters being stuck in the minds of viewers.

It's often said that the main inspiration behind the





story is an amalgam of 50s monster movie cliches, mad scientist, beautiful daughter, giant insects under the city and all. Yet none of these is really made much of in the broadcast version. There is one element which leaps out as owing a huge debt to *Them* however, and that's Turlough's catatonia, a rerun of the child found wandering in the desert at the start of the film. This has the useful effect of providing a character who knows what's happening but can't say until the end of the story. It also gives Mark Strickson something to do, and he takes the chance with both hands and his teeth. Norna is independant enough to move the plot along and give Turlough someone other than Tegan to tease but her real function is to give Mr Range a reason not to risk disclosure. He's the real heart of the story, and at risk of overplaying things his dilemma is a distant echo of Ibsen's *An Enemy Of The People* by way of the 70's remake *Jaws*; whether to blow the whistle on a public health menace (a septic tank, a huge shark, unaccountable disappearances) or bow to official pressure and keep quiet for fear of panicking the populace at a crucial time. The health element is important to the singular flavour of this story. Not for nothing are the militia called 'orderlies', it is a medical crisis, Plantagenet's heart attack, which earns the Doctor an 'in' to the society once he appears to be a permanant resident and it is in response to a medical emergency that the Doctor sticks his oar in against all his better judgement. Moreover, the hospital set gives the audience the best indication of how far this planet's society is walking a tightrope. Another 1940s touch is the poster of Revere which lets Tegan to recognise him later, but has such a Churchillian look that his successor can't help but seem to be in his shadow.

I mentioned FULL CIRCLE earlier, and it's interesting to compare the Rets to the Outlers. The usual feature of rebels against orderly societies is that they are right and the society is corrupt. LOGOPOLIS, CASTROVALVA and FRONTIOS posit societies where rebellion is corruption of a pure, mathematical harmony. Tegan's tirade against the sweatshop of Logopolis is based on the assumption that here is any alternative and, being a regeneration story, allows us to see how disastrous anti-social activity is. Shardovan questions his culture's assumptions and the fictional town disintegrates. Here, as on Alzarius, the ontological status of the planet isn't at stake but the survival of the humans depended on sticking close to the crashed ship and not innovating. Cockerill starts off as a black marketeer, using his position within the hierachy to steal food (very like Adric and the Outlers) and when things go wrong he finds no loyalty from the Rets. For once, the use of 'anarchy' as an abstract threat used to justify extreme measures pays off, as the Retrogrades, who "hunt like animals", either starve or get shot. The rumour that "there is no alternative" has to be maintained: "It's not easy to live inside the system, but to live outside of it takes more than you've got". It isn't that it would have been impossible (we have no evidence either way) but the thought that it is is the only counterweight to the widespread feeling that the planet's finished. FRONTIOS is a mix of Shakespeare's history plays and Soviet Russia (making the analogy of 'Ret' and 'Red' shaky) with bluff prince Plantagenet addressing the Doctor like he was at a public meeting.

So far, so good. A more realistic culture than anything we'd seen since THE ROBOTS OF DEATH and with a studio set that looks like locations in a main street on another world. The problems start with the monsters. Given the requirement to have people "eaten by the earth" like a duff Sam Raimi flick and bog-standard monsters behind it all Bidmead busts a gut to make it make sense. The mathematically smooth walls making a wave-guide is just about kosher science, but nothing in the material universe can be 'mathematically smooth' (a recurrent problem with Bidmead's stories is that he assumes mathematics pre-empts the real world) and this, and the darkening of the sky as a harbinger of a bombardment is also right but this makes the huge glitches all the more glaring. For the corpses to be sucked through the earth it has to be a planet made of cat-litter (especially for a heart patient to survive the journey). The use of corpses to grind walls smooth is equally daft, and even if the rock is granular pumise (and how did anything grow if it was?) the bones would break first.

However, the direction comes to the script's rescue. The overtones of zombies and anthropophagy, concepts Eric Saward would quixotically keep trying to make work in a **Doctor Who** format, are downplayed in favour of the semi-ironic comic-strip pastiche and character development. Similarly, the Tractators start out as a cross between the woodlice in Bidmead's old flat and a Season 2 composite (the Animus, the Zarbi, DALEK INVASION OF EARTH and a hint of **The Outer Limits** and the Zanti Misfits) but the Gravis is more eloquent than any of these and has a reasonable point. Looking like they do the average viewer will accept that they atre nasty horrid monsters. The subtlety of the human interactions are thrown into sharp relief by this broad stroke. That the machine isn't made of limbs only prevent adolescents from having a frisson on gruesome 'realism' in a story which shows the consequences of comparatively small actions in an adult and intelligent way. I•V

What the Fanzines Said...

"Bidmead's tale certainly had a lot going for it; it was an original, quite inventive story with hints of the atmosphere and style of the 'classic' **Doctor Who** of old."

Tim Boud, Wilf's Eye View 4

"For once, characters spring to life and actually have valuable ideas as to what's going on... This is all thanks to the literate and verbose pen of Christopher Bidmead, here abondoning any pretence of nicking arty concepts to tell a straightforward tale of ordinary people in a struggle for existence."

John Connors, Shada 18

"It seemed to me to be like one of the better Graham Williams productions - an enjoyable story containing humourous elements. In the case of FRONTIOS, not all the humourous elements were intentional."

Tim Ryan, Peladon 1

"The gloomy sets represented well the regression caused by the failure of their original technology and when the meteor bombardment took its toll, conditions were reminiscent of the trenches in World War One."

Tim Westmacott, Space Rat 8

"The concept behind FRONTIOS is not quite as mind-boggling as Chris Bidmead's other **Doctor Who** material but still contains the same fantastic basic idea which makes it a hit. In LOGOPOLIS we saw people who could work out mathematical formulae by chanting, in CASTROVALVA we saw people created by this formulae, but in FRONTIOS we met something more connected with Physics than Maths - the ability to draw objects to one through their mass and attractive powers. With this basic outline, Bidmead starts to construct a plot with fascinating intracies that results in a suberb piece of visual literature."

Paul Powell, Deva Loka 2

"With an improved plot and slightly better ending FRONTIOS would have been a classic, but in any case it only just failed to make the grade."

Michael Stead, Prydonian 3

"Again, Bidmead creates a culture rather than a race, with nice little things like abbreviations (Rets) that gives the show an extra realism."

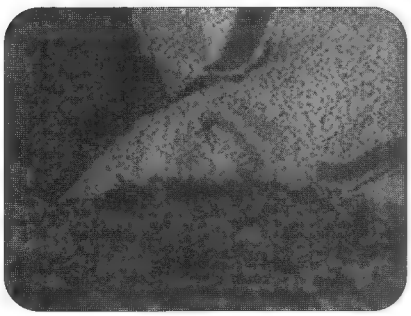
Robert Hill, Unearthly Child 2

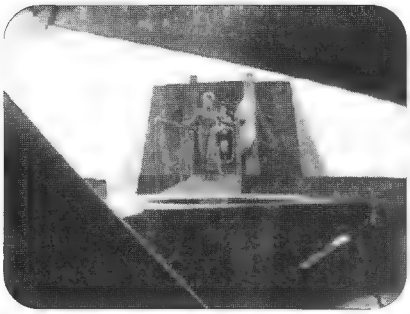
"Right from the start, I got the impression we were seeing Davison as he would have been all the time had Bidmead stayed on as script-editor."

Miles Booy, Cygnus Alpha 12

"The Tractators themselves were perhaps the best alien yet conceived by JN-T and co."

Zygon 1





the Tractators. This is the only section of Block Two where the non-speaking Tractator actors are required. Once more Dave Havard is able to put his cork filings tray to the test as Plantagenet's descent to the underworld is finally shot.

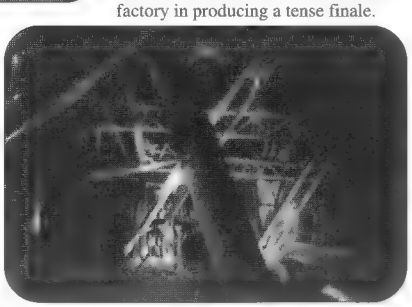
Having adopted the philosophy of leaving simple sequences till last, day two ends with a script-order shooting of all the scenes out on the hull/roof area of the ship — mostly involving moving the acid jar, or Cockerill distributing his stolen food supplies — plus all the remaining fragmented TARDIS console room scenes in part four. Although this is the standard TARDIS interior set, much of its architecture is obscured by strategically placed strips and flats of rock wall dressing. John Gillett, in full Gravis costume, does a number of tight close-up shots of his hand/claw operating the TARDIS controls which will later be edited together with previously recorded scenes of the console room in its fully dis-assembled configuration.

The scene kept until last is the pivotal episode four plot moment as where the Tractator leader exerts all his power to pull the sections of the TARDIS interior back together again. Describing this in the script, Christopher Bidmead was quite specific about what he wanted;-

"Wind blasts away the dust covering a TARDIS roundel. A door embedded in the raw rock flies open. A TARDIS panel is being tugged away from the wall by some unseen force. A roundel goes rolling away down the tunnel. Two panels join and are suddenly illuminated..."

The practicalities of doing this the writer's way were beyond the assembly-line logistics of a four part **Doctor Who** without any film inserts. Instead Ron Jones capitalises on combining slow cross fades with the tried and tested technique of camera shake to simulate earthquakes. Although some of the sequences will have to wait until post-production for combining them with "assembled" TARDIS footage, the emphasis is on shooting various cutaways of model rock walls crumbling in false perspective against CSO backcloths which will be replaced by TARDIS scenery during the gallery-only phase. Add wind machine, flashing studio lights and emoting actors and the recipe was satisfactory in producing a tense finale.

Friday 9th August 1983 The inevitable corridor scenes aboard the colony ship are shot during the afternoon session. Although straightforward, several of these sequences have to be done as wide shots with the camera pulled way back. Bidmead had asked for the interior of Revere's craft to look huge but this would have been too costly to attempt as a set. Instead Ron Jones has budgeted to accomplish this via a series of matte shots to be added during post-production.



By evening the only two blocks of action still be captured are those in and around the state room, plus everything within the restored TARDIS console room. The Doctor's inquisition-like trial is the one opportunity for actress Alison Stilbeck to shine in her role as Plantagenet's deputy. The role had originally been conceived with a male actor in mind, but during the planning stages Ron Jones struck a blow for equal rights and decided at least one of the colony's leaders should be female.

Having started Block Two very much behind schedule, by mid-evening on this final day Ron Jones is back on track. With the last hour and a half to go, only the restored TARDIS control room scenes are still waiting to be done. These are completed without incident. The closing moments of FRONTIOS, as the TARDIS gets drawn into a Dalek time tunnel, are an Eric Saward-added link and are accomplished by the perennial trick of camera shake to simulate juddering

movement of the set.

As the actors leave the studio, camera time is turned over to Dave Havard who needs to shoot a number of brief effects shots. These include all the establishing views of the crashed ship and some close ups of explosions caused by meteors hitting the ground.

POST-PRODUCTION:

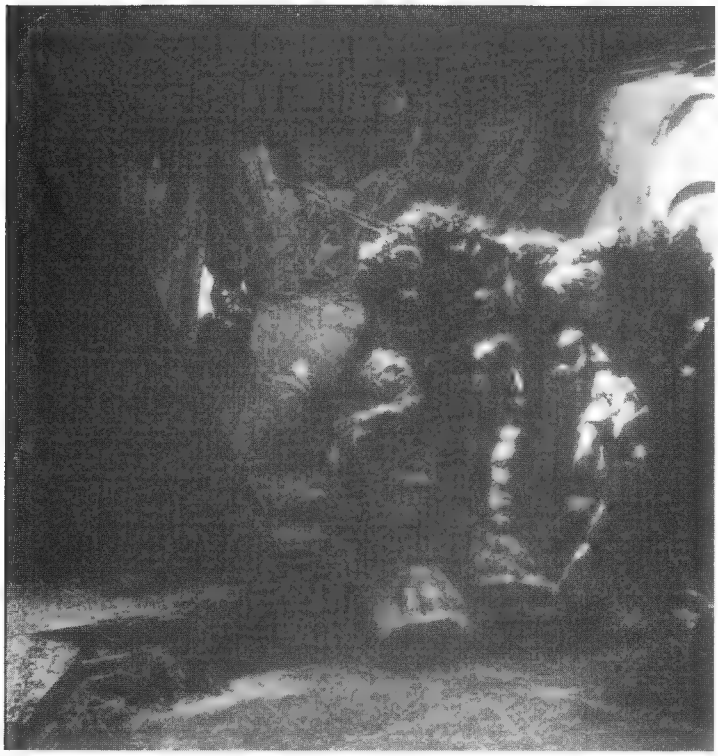
During its single gallery-only day FRONTIOS became the first **Doctor Who** to play host to a new piece of electronic trickery recently purchased by the BBC, Paintbox. More sophisicated than Quantel, Paintbox allowed Dave Chapman to cut image areas from one picture source, paste them electronically over a screen replaying another picture, and digitally edit the imported still as a bitmap to create a smoothly brushed out invisible seam between the two images.

Four mattes were thus created for the story; the establishing elevation shot of the colony ship's exterior hull against a red sky background, the giant cross-girders of the vessel's interior, the catwalks connecting various upper levels of the hull, and an establishing view of the gravity engine constructed by the Tractators in their central cave.

Another application of Paintbox was the grey speckles of 'shash' which gradually fade-up, obscuring the camera's view of those victims being drawn down into the earth. In effect a short piece of animation, this interference pattern was given a soft edged border and slowly introduced as a wipe so that it would, hopefully, look more like grains of earth covering the doomed victim as it appeared.

Another electronic effect was tried for those caught in the Tractators' gravity beams. A colour generator created a pink glow which was soft-edged matted around the target character. The 'brilliance' of this overlay was then increased so that the actor's face behind the glow effectively burnt-out, causing it to look solarised.

The meteor fireballs streaking towards the model planet were also produced during the gallery day, as was the finished composite shot matted onto the TARDIS scanner screen.



SPECIAL SOUND:

Two old clips of library sound were dug out of the Radiophonic archive for this serial; the growling, slowed down TARDIS engine sound, as the ship malfunctions in part one, was originally devised by Brian Hodgson for THE DALEKS, as was the hollow wind heard as ambient background over scenes set out on the hull of the colony ship.

The voice of the Gravis was provided by John Gillett. Wearing a radio microphone, Gillett performed his lines real time down on the studio floor. Fellow cast members could hear a muffled version of the actor's own voice, but up in the gallery his lines were fed through the sound mixing desk to remove any richness of tone, creating a harsher sound that was then further enhanced with a mild frequency modulation and a lot of echo.

There were a lot of pure synthesiser sound effects for Dick Mills to create — for example, the hum of the Tractator's gravity beams, or the whistle and crash of the plummeting meteorites — but there were some noises which benefitted from combining electronic signals with library grams tracks. One example was the excavating machine, which melded electronically created whirrs with the processed sound of an aircraft's propellor engine — with added clanks provided by the prop's own working parts.

MUSIC:

Working freelance from his own London studio, and with equipment that enabled him to synchronise his composed soundtracks directly to the picture frames, Paddy Kingsland bowed out of **Doctor Who** with a memorable score for FRONTIOS.

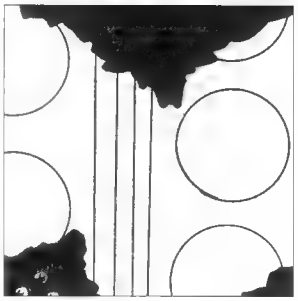
The main instruments Kingsland used were a guitar, a drum kit, keyboard synthesisers and, in a another first for **Doctor Who**, pan pipes. Arrangements featuring the first three of these tended to underscore scenes with the orderlies or with Brazen and his men. Thus many of the cues had a military beat to them. The pan pipes were added generally whenever the action favoured the civilian colonists or those with non-military leanings, such as Norna or Mr Range.

The pan pipe themes were heavily electronically echoed by Kingsland to give the music a greater sense of depth and size. This was deliberately to fit in with the supposed size of the colony ship and the Tractators' central cave, as the composer stressed in an interview for *DWM* 205. Despite being quite proud of his compositions for FRONTIOS, Paddy Kingsland expressed a view to interviewer Austen Atkinson-Broadbelt that perhaps it had been too much of a solo effort, with little in the way of collaborative input by the Director.

"I like Ron Jones, although I did feel that he left me on my own a bit. But I had done so many **Doctor Who**s by then, I think he felt that he would get what he needed from me."

"I think Ron (Jones) had to work very hard on that one. It was all studio but he gave it a very big feel with all those large, dark rooms and vaulted ceilings. I sort of used that feeling by giving the music a church-like sound. The strongest sounds were the pipes of pan, and it had quite a lot of percussion sound, with a lot of bass drum in there. I made the underground feel more futuristic; it was a bit heavier with more drum sounds. It was all very Orwellian, with the guards, the posters and all of that disinformation. It was very 1984!"

Paddy Kingsland



CUTS:

Just as Eric Saward had predicted when first viewing Christopher Bidmead's scripts, the story did over-ran by just over eight minutes once all the material had been edited into narrative order. The first significant cut to a 28' 58" first episode was this complete, if brief, scene of Tegan and Turlough returning to the TARDIS to fetch the argon discharge globes.

Curiosity has drawn a small group of orderlies and colonists around the TARDIS. But as Turlough runs back towards it, followed by Tegan, the group withdraws to a distance, whispering.
TURLOUGH: I thought we weren't supposed to be interfering on this planet. Time Laws, and all that.
TEGAN: You know the Doctor. Once he gets interested... [They go inside the TARDIS]

The scene was chopped immediately after Brazen emerges from the ship, guided by an orderly who points in the direction of the TARDIS. Ironically, the loss of this scene made Turlough's remark to Tegan about them having lost their news value nonsensical.

Next, a scene presaging Cockerill's later defection was chopped of the orderly standing guard outside the doors to the state room.

Brazen walks along the corridor, looking for Plantagenet
COCKERILL: He's in the state room.
BRAZEN: He?! Plantagenet, if you please, Cockerill. We'll use his name with respect. A leader is a leader. [Cockerill snaps to attention]

Shortly afterwards, another major edit also took out material involving Cockerill. Hiding from the guards aboard the out-of-bounds ship, Tegan, Turlough and Norna dart into the state room, unaware at first it is not unoccupied.

Norna closes the door just in time. The three friends lean against the door, holding their breath as footsteps recede down the corridor. They become aware of the menacing presence of Cockerill. When he feels he has teased them enough he relaxes. He munches on his food
COCKERILL: Security must be at an all-time low if a bunch of kids can just wander into the state room.

The Doctor's discussion with Range about the bombardments remained, but right after Plantagenet's arrival with a squad of guards, the action would have cut back to the exterior of the state room.

Cockerill puts his head out of the state room door and looks up and down the corridor. Then he signals the all clear. Norna, Tegan and Turlough slip out of the state room. Norna hesitates and turns back to Cockerill
NORNA: Why are you doing this?
COCKERILL: [Shrugging] If I understood long words like "why"... I wouldn't just be an orderly.

Cockerill has clearly stolen something from the state room and later on it is revealed to be food. Before getting to that scene, however, another scene was cut featuring the treacherous orderly.

Brazen is passing the blocked up entrance to the research room when he hears a tuneless whistling approaching down the corridor. Cockerill is walking towards him, his hands in his pockets
BRAZEN: Are you on duty, Cockerill?
COCKERILL: Yes, Sir.
BRAZEN: Then conduct yourself like an orderly. You look more like one of those hope forsaken retrogrades. [Cockerill snaps to attention with an exaggeration that a keener mind than Brazen's would recognise as an insult]
COCKERILL: Yes, Sir!
BRAZEN: Where are you off to anyway?
COCKERILL: I was on my way to assist Kernigan and Ritchie. There's an alert.
BRAZEN: I initiated it, Cockerill. The hull, man. On your way.

The final significant chop was, again, what have been a significant demonstation of Cockerill's changing loyalties. Having concluded their meal out on the hull, the orderly rises — and catches sight of Turlough over the bulwark. Their eyes meet, just as a whistling sound is heard in the air, signifying another bombardment is about to begin. Unwilling to arrest Turlough, Cockerill distracts his fellow orderlies long enough for the boy to squeeze back through the hatch.

Further snips were made to part one to bring it down to a 24' 39" running length. The opening scene at the excavation site, where Captain Revere disappears, was pruned markedly, pruning away anything bar essential dialogue and key stage directions.

Episodes two and three were not so badly in need of surgery. The former lost a brief cutaway of the acid jar frothing, some ladder

descending footage and some of the shots where Brazen's men are battering down Tegan's barricaded door. The latter lost what was to have been a series of cross-faded shots of the tunnels as the Doctor begins describing the Tractators in a voice-over sequence. The final sequence in this montage would have been a push-forward shot into the main cave, centering on the Gravis who is clearly somehow listening to the Doctor's speech. Loss of this segment created the puzzle as to how the Gravis knows about the Time Lords.

Part four had to lose a lot of material. The lengthy exchanges between the Doctor, Tegan and the Gravis endured a number of deletions, starting with the Tractator leader's own introduction which should have continued with:-

GRAVIS: I am called the Gravis. At last, after millenia as outcasts of the universe, we have found a home. But of course you Time Lords must know that by now.
DOCTOR: Must we?
GRAVIS: Why else would the rulers of Gallifrey have sent you on this fruitless mission to interfere?

Another snip took place a few moments later, just after the creature has expressed an interest in seeing the Doctor's TARDIS.

DOCTOR: Of course, Gravis. I'd be grateful for your opinion. You're a creature of fine judgement, obviously.
[Tegan gives the Doctor a sharp look, not pleased by this flattering turn of the conversation. The Doctor smiles pleasantly back at her, but manages a covert signal to her to stay out of it. The Doctor is pretending to inspect the carvings round the walls an an excuse of a whispered conversation with Tegan]
DOCTOR: Fascinating map of the tunnel system... [Dropping voice] We're in grave danger here, so please leave this to me.
TEGAN: [Aside] May be, but what's the idea of jollying him along? He's disgusting.
DOCTOR: Greedy too, and responds to flattery. We'll have to work on that.
TEGAN: Work on it?
DOCTOR: Sssshh
TEGAN: It's a matter of principle.
GRAVIS: What are you whispering about?
DOCTOR: [Aloud] I was saying you've done a lot of work on the tunnel system. Using the toroidal principle... as my assistant points out.

After this exchange, another scene in the tunnels was lost from before Cockerill's fight with the orderly guarding Norna.

[Brazen and his orderlies, and accompanied by Mr Range, have paused at a junction]
BRAZEN: Well, Mr Range...?
RANGE: I think I remember the way...
BRAZEN: I'll need more than guesswork if I am to lead my men into danger.
RANGE: [Irritated] You lead them then, if you're not happy with my directions.
BRAZEN: My job is carrying out what has to be done, Mr Range. I leave the business of directions to wiser heads.
RANGE: I can't carry responsibility for this whole expedition.
BRAZEN: You're Chief Science Officer, as you're fond of telling me, Mr Range. "Chief" means "in charge of". "Science", as I understand it, means "knowing". And "officer" means that the men are looking to you. Sir.
RANGE: [Looking from one to the other of the two junctions. He still doesn't know which direction to go, but he responds wearily to Brazen's challenge] This way, I suppose.

A big chunk of Doctor/Gravis dialogue was lost straight after the Gravis's offer that the Time Lord might want to watch the Tractators fitting Captain Revere's replacement into the excavating machine.

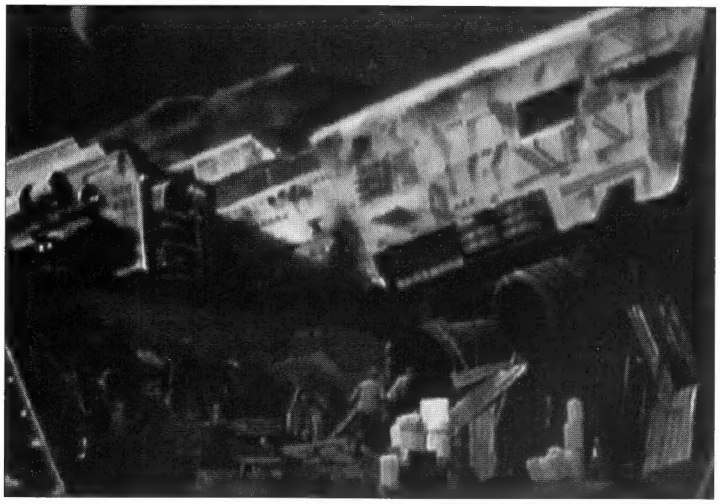
DOCTOR: Remarkably ingenious, Gravis. I'm certainly looking forward to seeing...
[The Doctor is patting himself, looking for something in his pockets] My glasses... I've left them with the android. Would you mind if I just...
[With a nod to the other Tractators, the Doctor hurries back the way he has come]
INTERIOR: SMALLER CAVE
[Tegan is pinioned against a wall by the guard Tractator, as we last saw her]
TEGAN: Can't you turn it off, whatever it is? I can hardly catch my breath. [She catches sight of the Doctor returning] Doctor!
DOCTOR: Sorry about this, but it's the only way. [To the Tractator] Came to get... a pair of... glasses. Spectacles. Jolly good. [The Doctor beams amiably at the Tractator and mimes a pair of glasses to it, as though it were some poor, uncomprehending French waiter] Listen... Quick. You're an android..
TEGAN: I certainly am not.
DOCTOR: Because if they think you're alive they may get the idea of adding you to their human meccano set.
TEGAN: I am an android.
DOCTOR: And I'm President of the Tractators' Fan Club. Just making an adjustment. I hate deception, but at the moment we've no other weapon. And the Gravis certainly responds to flattery.
TEGAN: I know they're dangerous, Doctor, but...
DOCTOR: We haven't even begun to know how dangerous they are. [With a glance at the map on the wall] This tunnel system isn't just for transportation and accomodation. I've an idea they're up to something of cosmic proportions. Now, here's what we're going to do...

And shortly afterwards, back in the central cave, the Doctor returns from his visit to the android in another trimmed scene.

GRAVIS: You found your spectacles, Doctor?
DOCTOR: [The Doctor stops in his tracks. He has clearly forgotten all about the alibi. Plantagenet is being dragged along in his cage by one of the Tractators. The Doctor wishes him a pleasant, distracted 'Hello' as he searches his pockets] They're here somewhere. That's the trouble with being a Time Lord. There's so much to remember, and only one small head to put it all in. I think... Yes... [The Doctor finds a spectacle case in one of the inner recesses of his coat. He waves it triumphantly] The eyes have it, Gravis.
[The Doctor puts on the spectacles, which turn out to be his half-frame reading glasses. He peers through them at the Gravis] A world of difference. Thank you.
GRAVIS: [Suspiciously] These devices help your vision?
DOCTOR: Poly-directrix lenses with circular, polarizing filters. Reduce spectral reflection as much as seventy-five percent, without any perceptible deterioration of resolution. Gallifreyan technology... like the TARDIS.

A while later, just after Brazen's suicidal attack has demolished one of the excavation machines and the Gravis is screeching with fury, the Doctor notices a new cave passage has been revealed by the device's headlong crash. He decides to help the survivors.

DOCTOR: Come on. I think it's time we left.
TEGAN: Up there????



Roller-Coaster?

Friday 27th January 1984

BBC1

| | | |

FRONTIOS

Series 21, Story 3
Serial 133, Code 6N
Episodes 616-619

Cast:

The Doctor [1-4]	Peter Davison
Tegan Jovanka [1-4]	Janet Fielding
Turlough [1-4]	Mark Strickson
Chief Orderly Brazen [1-4]	Peter Gilmore
Chief Science Officer Range [1-4]	William Lucas
Cockerill [1-4]	Maurice O'Connell
Norna [1-4]	William Lucas
Leader Plantagenet [1-4]	Jeff Rawle
Gravis [2-4]	John Gillett
Retrograde [3-4]	Raymond Murtagh
Deputy [3]	Alison Skilbeck
Orderly [1][1]	Richard Ashley
Tractators [2-4][1]	George Campbell
	Michael Malcolm
	Stephen Speed
	William Bowen[2]
	Hedi Khursandi
	Caroline Haigh
	Robert Peters
	Fernando Monast
	Robert Goodman
	Laurie Goode
	Peter Gates Fleming
	Terry Bradford
Colonist [1-2]	Judith Jeffrey
Stuntman/Warnsman [1]	Jim Dowdall
Patients [1]	Sue Somerset
	Rita Daniels
	Barbie Denham
	Jay McGrath
	Joe Phillips
	Michael Jeffries
	Alan Forbes[4]
Paramedics [1-2]	Kevin Goss
	Linda Kent
Paramedic [1]	Dominic Reyntiens
Paramedic [2]	Judy Collins
Retrogrades [3-4]	Anthony Freeman
	Terence Brook
	James Lyon
	Peter Creasey
	Mike Mulloy
Men in Excavator [3-4][5]	Salo Gardner
	Llewellyn Williams
	Paul Andrew
Stuntman/Fighting Retrograde [4]	Steve Emerson

Small and Non-Speaking:

Captain Revere [1,3-4]	John Beardmore
Orderlies [1-4]	John Greening
	Keith Norrish
	Daniel D'Arcy
	Barry McKenna
	Miles Ross
	Chris Holmes
	Ian Marshall[3]
	John Hamilton Russell
	Rodney Cardiff[4]
Colonists [1-2,4]	Monica Ramone
	Penny Rigden

Crew:

Title Music by	Ron Grainer and the Radiophonic Workshop
Arranged by	Peter Howell
Incidental Music	Paddy Kingsland
Special Sound	Dick Mills
Production Assistant	Valerie Letley
Production Manager	Alex Gohar
Assistant Floor Manager	Joanna Guritz
	Ed Stevenson *replacing Lynn Richards*
Floor Assistant	Brenda Thomas
Studio Lighting	John Summers
Technical Manager	Alan Arbuthnott
Studio Sound	Martin Ridout
Grams Operator	Gordon Phillipson
Video Effects	Dave Chapman
Vision Mixer	Paul Wheeler
Videotape Editor	Hugh Parson
Crew	11
Camera Supervisor	Alec Wheal
Costume Designer	Anushia Nieradzik
Assistant	Peter Halston
Dressers	Frances Miles
	Sue Clayton
	Derek Sumner
	Philip Winter
	Philip Winter, Camilla Gavin
Make-Up Designer	Jill Hagger *replacing Dawn Alcock*
Make-Up Assistants	Damalza Rogers
	Susan Kirkham
	Helen Johnson
Visual Effects Designer	Dave Havard
Visual Effects Assistant	Berry Brahan
Properties Buyer	Robert Flemming
Designer	David Buckingham *replacing Barrie Dobbins*
Design Assistants	Maggie Carroll
	Matthew Lorrimer
Production Secretary	Sarah Lee
Production Associate	June Collins
Writer	Christopher H Bidmead
Script-Editor	Eric Saward
Producer	John Nathan-Turner
Director	Ron Jones

Programme Number: AEGT023D

Recording: 24th - 26th August 1983, TC6.
7th - 9th September 1983, TC6.

Transmission:

Part One: 26th January 1984, 6.40pm BBC1 (24'39", 18.41.-- - 19.06.--)
Part Two: 27th January 1984, 6.40pm BBC1 (24'35", 18.41.-- - 19.06.--)
Part Three: 2nd February 1984, 6.40pm BBC1 (24'30", 18.40.-- - 19.04.--)
Part Four: 3rd February 1984, 6.40pm BBC1 (24'26", 18.42.-- - 19.07.--)

Audience, Position, Appreciation:

Part One:	8.0m, 58th, 66% . .
Part Two:	5.8m, 115th, 69% . .
Part Three:	7.8m, 59th, 65% . .
Part Four:	5.6m, 112th, 65% . .

I•V

Books & Literature

BIDMEAD, Christopher H: *Doctor Who - Frontios* (WH Allen, 1985)
GOLDING, William: Lord of the Flies
HOWE, WALKER: *The Fifth Doctor Handbook* (Virgin, 1995)
HOWE, STAMMERS, WALKER: *Doctor Who - the Eighties* (Virgin, 1996)

Magazines

*Doctor Who Magazine*89(1984: Review by Gary Russell)

Theatre

The Elephant Man
An Enemy of the People
Five Finger Exercise
Once a Catholic
Other Worlds
Playing with Trains
The Young Poisoners' Handbook

Cinema

A Little Night Music (1977)
The Abominable Dr Phibes (1971)
Battle Beneath the Earth (1967)
The Belles of St Trinian's
Bitter Harvest (1963)
Black Beauty (1972)
Bomb in the High Street (1961)
Carry on Cabby (1963)
Carry on Cleo (1964)
Carry on Columbus (1992)
Carry on Cowboy (1965)
Carry on Jack(1963)
The Cockleshell Heroes (1955)
Correction Please
Crystal Gazing
The Dam Busters (1955)
Doctor in Clover (1965)
The Elephant Man (1980)
Follow That Camel (1967)
For Those in Peril (1944)
Forbidden Planet (1956)
The Great St Trinian's Train Robbery (1966)
Gulliver's Travels (1963)
The Hellfire Club (1961)
A Hitch in Time
House of Evil (1976)
Ice Cold in Alex (1955)
Jaws
Khartoum (1966)
A Man Called Intrepid (1979)
Men of Sherwood Forest (1954)
The Monster Club (1980)
Night of the Big Heat (1967)
The Oblong Box (1969)
Oh What a Lovely War (1969)
The Plague Dogs (1982)
Portrait of Alison (1955)
The Pure Hell of St Trinian's
The Secret of Blood Island (1965)
Shadow of the Cat (1961)
The Shattered Eye (1970)
Straw Dogs (1971)
Tess (1979)
Time to Kill (1955)
Timeslip (1955)
Touch of Death (1962)
Tower of Evil (1972)
Warlords of Atlantis (1978)
Watership Down (1978)
X the Unknown (1956)

Television

The A Team (1983-88)
Angels (BBC, 1975-83)
Bergerac (BBC, 1981-91)
Billy Liar
The Adventures of Black Beauty (LWT, 1972-197); **The New Adventures of Black Beauty** (LWT, 1990)
Blake's 7 (BBC, 1978-81)
The Changes (BBC, 1975)
Children in Need *(BBC,*
Doctor Who (BBC 1963-89, 1996)
Drop the Dead Donkey (C4, 1990, 1992, 1993, 1995, 1996)
Eldorado (BBC, 1992-93)
The Hitch-Hiker's Guide to the Galaxy (BBC, 1981)
Juliet Bravo (BBC, 1980-85)
May to December (BBC, 1989-94)
Minder (Thames, 1979-94)
Mogul/The Troubleshooters (BBC, 1965-72)
The Onedin Line (BBC, 1970-80)
The Outer Limits (1964-66)
Penmarric (BBC, 1979)
Play for Love
Play for Today: *Death of a Young Young Man* (30/1/75)
The Red Shift
Rigoletto
The Rose Garden
Secret Army (BBC, 1977-79)
Singles Weekend
South Riding (Yorkshire, 1974)
The Spoils of War (Granada, 1980-81)
Survivors (BBC, 1975-77)
Triangle (BBC, 1982-84)
The Water Maiden
Waters of the Moon
Wilde Alliance (Yorkshire, 1978)

Doctor Who

The Androids of Tara
Arc of Infinity
The Ark
The Awakening
Black Orchid
Castrovalva
The Dalek Invasion of Earth
The Five Doctors
Full Circle
The Happiness Patrol
Kinda
Logopolis
Mawdryn Undead
Planet of Evil
The Ribos Operation
Resurrection of the Daleks
Shada
State of Decay
Time-Flight
The Visitation
Warriors of the Deep

Music

Doctor Who - The Music II (aka *The Five Doctors)*

I•V

Next Episode:

RESURRECTION OF THE DALEKS

Terry Molloy on the return of Davros